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SAN LUIS OBISPO COUNTY

DEPARTMENT OF PLANNING AND BUILDING

□□□□ April 10, 2014

□□□ Planning Commission

□□□M□ Ryan Hostetter, Senior Planner, Project Manager

□□□□□□ Revised Plans for the Loperena Coastal Development Permit DRC2005-00216

History

The Planning Commission heard the Loperena Coastal Development Permit on the January 23, 2014 agenda. The Loperena project includes a request to construct a single family residence on a vacant parcel adjacent to the beach at the north end of Studio Drive, near the intersection of Highway 1 and Studio Drive. During the January hearing, the Commission took public testimony, discussed the project, and continued the item. The Commission requested that the applicant prepare a revised project design at the April 10, 2014 hearing.

The requested changes included a design which brought the cantilevered or westward portion of the house back and modified the basement (potentially with pilings) while shrinking the length of the residence, and including a two story design. The Commission discussed potentially lowering the main level to accommodate a two story residence, the potential coastal hazards on the lower basement, and the visual impacts of the design from the public viewshed. Based on this discussion the applicant revised the design of the project for your review and consideration.

Revised Project

The revised project includes a shorter cantilever by approximately 16 feet of interior living area (at the longest point). The house went from an approximately 90 foot long home (at the longest point with the deck) to an approximately 70 foot long home with the deck included. The original design included an approximately 2,717 square foot residence with a 200 square foot car port. The revised design shown in the table below for comparison is approximately 2,174 square feet with a 200 square foot partially covered outdoor parking space.

	Original Design Sq Ft	Revised Design Sq Ft
Basement	1,040	814
Main level	1,097	841
Mezzanine	338	280
Garage	242	239
Car Port	200	200 (partially covered)
TOTAL	2,917	2,374

The revised design includes a more traditional architectural style. The applicant is proposing hip style roofs as well as hardy wood appearing vertical siding with white trim and a dull grey metal roof. The side yard setback on the north contains a flat patio within the side yard and the water cistern and

976 OSOS STREET, ROOM 300 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805)781-5600

EMAIL: planning@co.slo.ca.us • FAX: (805) 781-1242 • WEBSITE: <http://www.sloplanning.org>

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walls for the cistern have been removed. There is an additional outdoor roof deck within recessed portions of the main floor roofline as well.

Attached to this memo includes full size plans and color renderings of the revised design. One of these graphics shows a color visual representation of the home with a pink outline representing the outline of the original project. This visual shows the new design fitting within the box of the original home, however is much shorter. The height of the proposed home remains the same as the original project at 15 feet as measured from the the center of Studio Drive.

Small Scale Neighborhood

Gross Structural Area: The revised project proposes a single story design with a basement and mezzanine. The basement is considered living area within the lower level of the home and the applicant has included this square footage within the "gross structural area" calculations. The mezzanine is not included within the gross structural area calculations (and is also not required to be included). The definition of gross structural area is "All interior areas, expressed in square feet of floor area, within the volume of the structure including living areas, storage, garages and carports. Gross Structural Area is measured to the exterior limit of the building walls. Gross Structural Area does not include open exterior decks or interior mezzanines (as defined by the UBC) added within the height limitation to gain additional square footage." The mezzanine complies with the building code definition as it is 1/3 the floor area of the main level below which is the definition of a mezzanine (and is not required to be counted as gross structural area). The mezzanine is 280 square feet which is 1/3 of the main level of the home which is 841 square feet.

The Commission discussed the standards for the Small Scale Neighborhood lots that are not considered "bluff top" lots (Table 7-3 Maximum Gross Structural Area). This table was not considered in the original design as Planning Staff was using the standards similar to other lots within this neighborhood on this west side of Studio Drive which can go up to 3,500 square feet. However, the applicant's revised design would comply with this "non-bluff top lot" table for gross structural area. The standard for non bluff top lots is based on lot size, and for this particular lot of 3,444 square feet, the maximum square footage would be 55% of the lot not to exceed 2,500 square feet or 1,894 square feet total (not including the mezzanine). The project complies with the gross structural area requirements of the Estero Area Plan.

Setbacks: The setback requirements for the revised project remain the same as the original project (3 feet from the side property lines, 10 feet from the rear property line, and 0 in the front, and special bluff setbacks as outlined in the geologic evaluation). Additionally the small scale neighborhood standards requires additional setbacks for two story development, however because the building code considers this a single story home, the applicant is not required to use these standards. The applicant's redesign however uses some of the additional setbacks which include the upper level of the home (or in this case the mezzanine) being setback an additional 2.5 feet on the sides from the lower level wall on portions of the building. These additional setbacks are often referred to as the "wedding cake" design setbacks because the upper level is set in further from the first floor. The applicant has chosen to include these additional setbacks on the mezzanine in order to increase the compatibility with other new multi story development within the small scale neighborhood of Cayucos. The project complies with the setback requirements of the Estero Area Plan.

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Other Small Scale Neighborhood Standards: The revised project complies with the parking, height, deck railing and driveway standards as outlined in the original staff report, and this proposed revised project does not change the conclusions of the original staff report as those items are not changing from the original design. The project complies with the small scale neighborhood design standards of the Estero Area Plan.

Geology

The project geologist (Mike Phipps, Cotton Shires Associates) has reviewed and analyzed the revised drawings (attached Cotton Shires memo). The project from a geologic perspective is essentially the same, however the lower level has moved back from the edge of the original basement by approximately 10 feet. This provides an additional area of buffer between the edge of the rock outcrop and edge of the creek bluff to the basement wall on the west side.

Wave run-up/Coastal Hazards

Based on discussion during the Planning Commission hearing, the wave run up analysis included the worst case scenario for the potential of sea level to rise 5.5 feet in order to be consistent with the draft Coastal Commission Sea Level Rise policy document, as well as the draft County of San Luis Obispo Local Hazard Mitigation Plan (which has not yet been approved by Federal Emergency Management Agency and remains in draft form). Attached is an additional analysis conducted by Dave Skelly MS of Geo Soils INC who conducted this review based on these revised Sea Level Rise calculations. Mr. Skelly's conclusions remain consistent with his original conclusions that under extreme conditions there would be wave run-up, but that based on the unique characteristics of the site and beach (i.e. waves breaking off shore, velocity of water at the site) that there would not be structural damage. There could potentially be water (approx 1 foot) at the basement level, but at a low velocity and it is not expected to structurally damage the residence.

Staff Recommendation

Staff recommends that the Planning Commission review the revised project, findings and conditions and that the Commission:

1. Certify Final Environmental Impact Report, including Appendices;
2. Adopt Revised CEQA Findings in Exhibit C, including the revised project findings listed in Exhibit A and attached herein;
3. Approve the revised Minor Use Permit/Coastal Development Permit DRC2005-00216 based on the revised findings in Exhibit A and C and the *revised* conditions listed in Exhibit B.

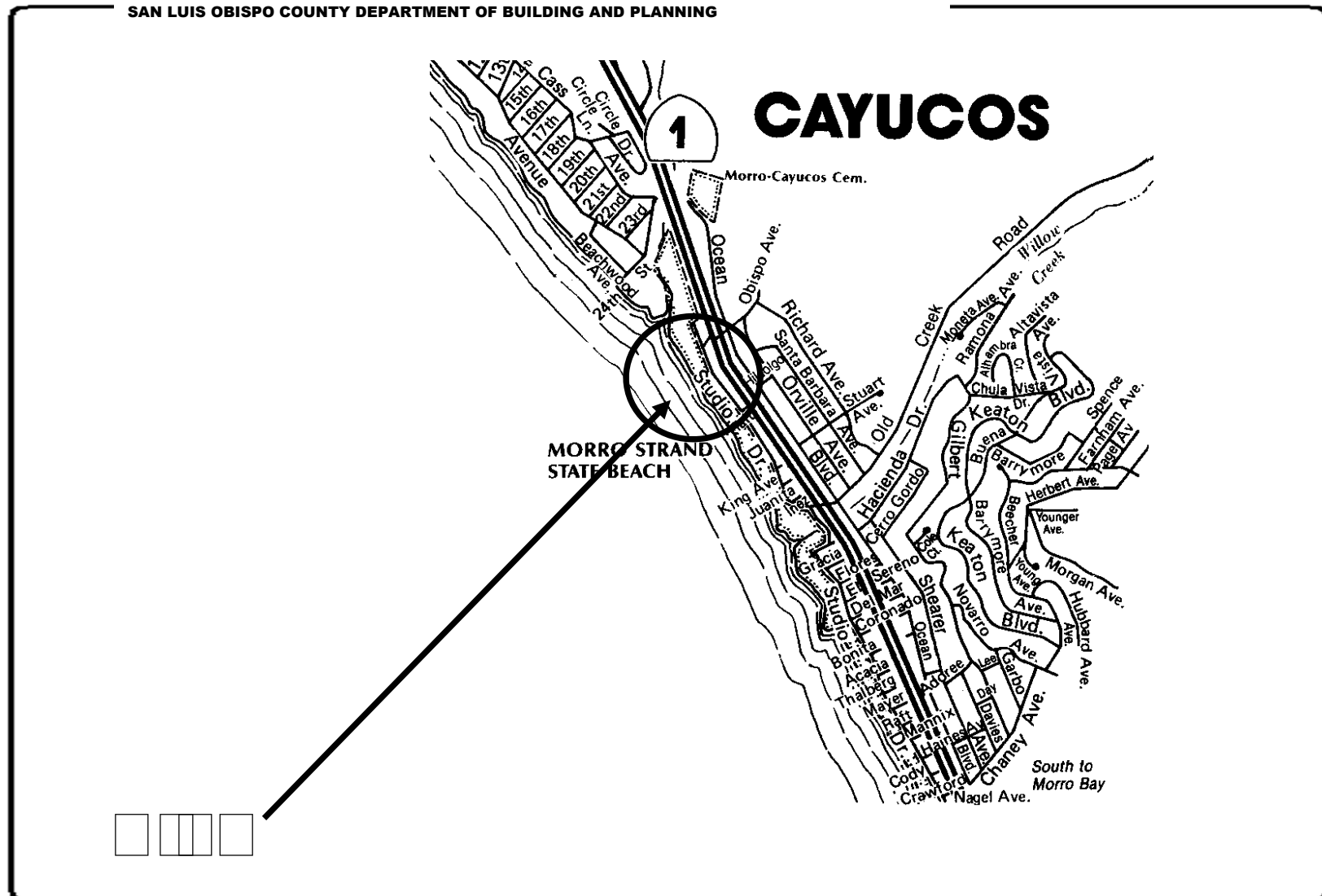
Staff Report prepared by Ryan Hostetter and reviewed by Steve McMasters and Ellen Carroll.

Attachments

1. Revised Plans in 8.5 x 11 in. format (full size handed out to Planning Commissioners)
2. Revised Findings in "Revised Exhibit A"
3. Revised Conditions of Approval in "Revised Exhibit B"
4. Revised CEQA Findings in "Revised Exhibit C"
5. Additional analysis performed by GSI(March 12, 2014)
6. Memo from Cotton Shires Geologist (March 19, 2014)

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PROJECT

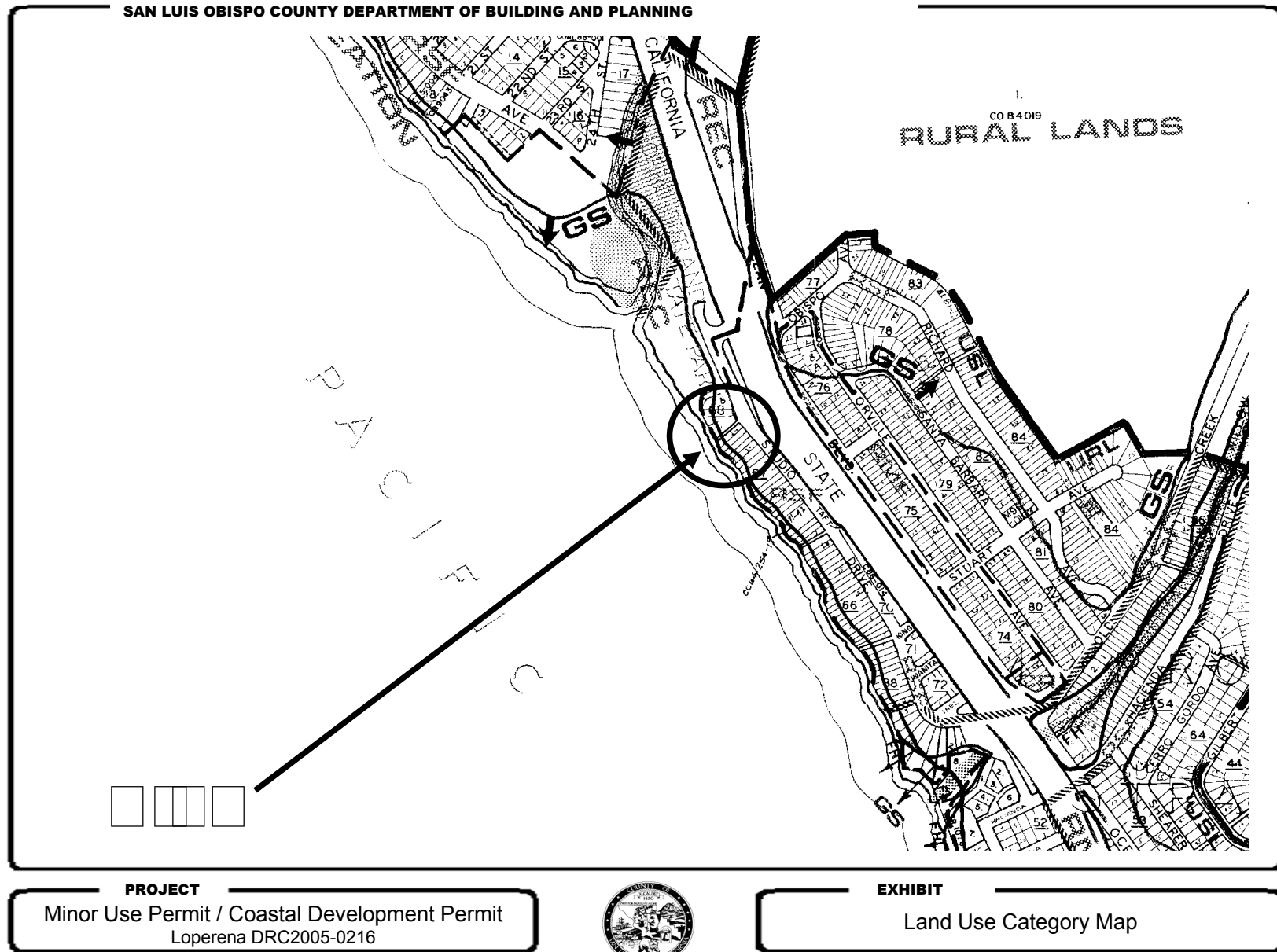
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EXHIBIT

Vicinity Map

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EXHIBIT

Aerial Photograph

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21'-6 1/2"

40'-0 1/2"

21'-6 1/2"

40'-0 1/2"

DASHED LINE INDICATES WALLS ON MAIN LEVEL.

SEALD GATE ON CURB

PATIO

BEDROOM

CLST.

LOUNGE

STORAGE

BATH

BATH

20' GARAGEWIDE ENTRANCE

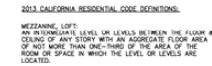
40'-0 1/2"

BASEMENT FLOOR PLAN

1. MORE THAN 6 FEET ABOVE GRADE PLANE; OR
2. MORE THAN 12 FEET ABOVE THE FINISHED GROUND LEVEL AT ANY POINT.

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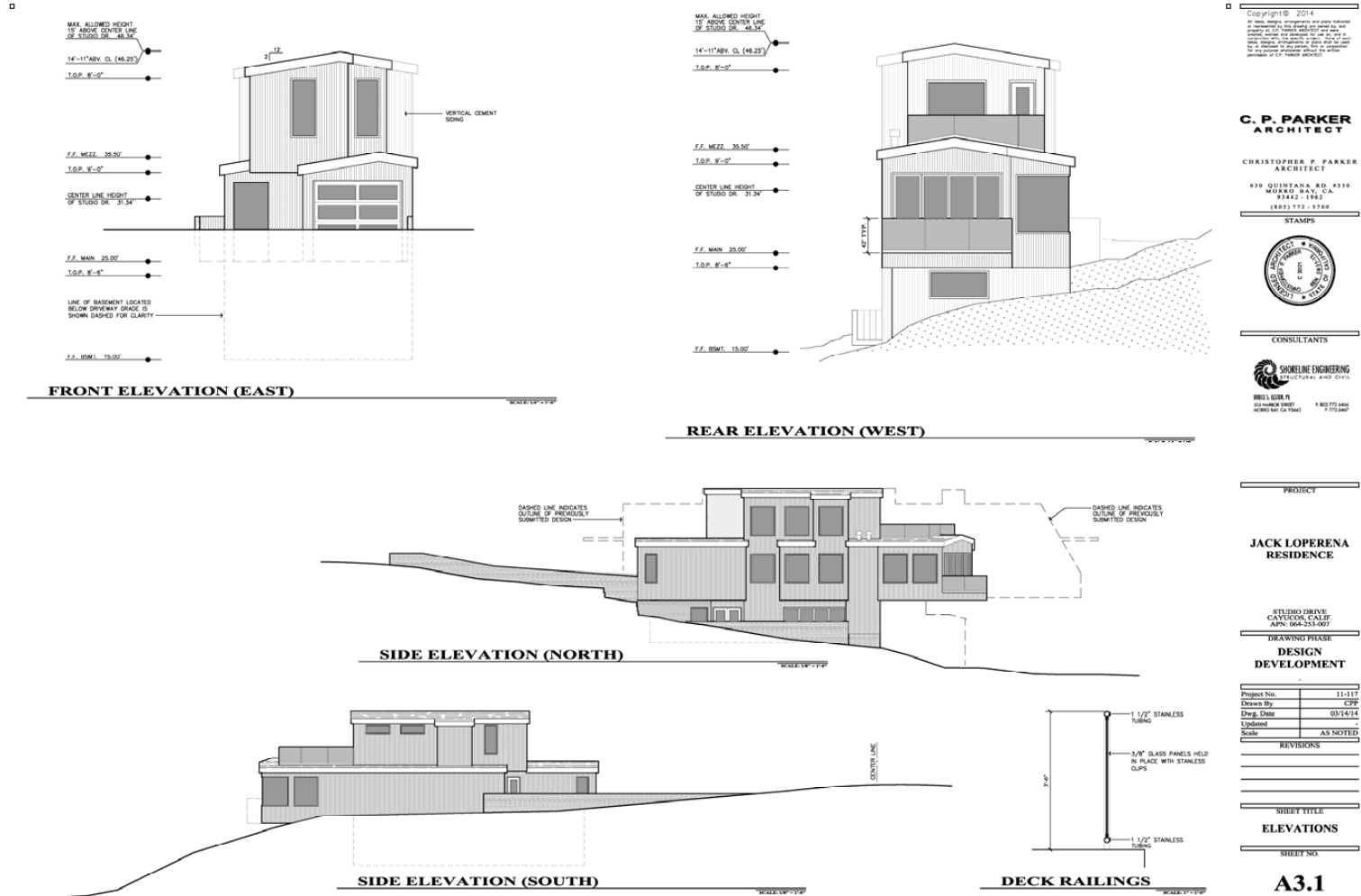


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PROJECT

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EXHIBIT

Elevations

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SAN LUIS OBISPO COUNTY DEPARTMENT OF BUILDING AND PLANNING



PROJECT

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EXHIBIT

Elevations – East and South

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Minor Use Permit

- A. The proposed project or use is consistent with the San Luis Obispo County General Plan, because a single-family residence is an allowable use, and as conditioned, is consistent with all of the General Plan policies as outlined in the staff report.
- B. As conditioned, the proposed project or use satisfies all applicable provisions of Title 23 of the County Code.
- C. The establishment and subsequent operation or conduct of the use will not, because of the circumstances and conditions applied in the particular case, be detrimental to the health, safety or welfare of the general public or persons residing or working in the neighborhood of the use, or be detrimental or injurious to property or improvements in the vicinity of the use, because the construction of a single-family residence does not generate activity that presents a potential threat to the surrounding property and buildings. This project is subject to Ordinance and Building Code requirements designed to address health, safety, and welfare concerns.
- D. The proposed project or use will not be inconsistent with the character of the immediate neighborhood or contrary to its orderly development, because the proposed single-family residence is similar in nature to, and will not conflict with, the surrounding lands and residential uses.
- E. The proposed project or use will not generate a volume of traffic beyond the safe capacity of all roads providing access to the project, either existing or to be improved with the project, because the project is located on Studio Drive, a local road constructed to a level able to handle the minor amount of additional traffic associated with the project.

Coastal Access

- F. The proposed use is in conformity with the public access and recreation policies of Chapter 3 of the California Coastal Act, because the project is conditioned to require coastal lateral access, and because adequate vertical access to the coast already exists adjacent to the site to the North.

Small Scale Design Neighborhood

- G. The proposed project meets the Community Small-scale Design Neighborhood standards and guidelines, and is therefore consistent with the character and intent of the Cayucos Community Small-Scale Design Neighborhood.
- H. Public views of the ocean from Highway One and the respective neighborhood are not being further limited because the proposed single family residence is directly adjacent to existing residential development.

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RECOMMENDATION - APPROVE WITH CONDITIONS

RECOMMENDATION

1. This approval authorizes a request by Jack Loperena for a Minor Use Permit/Coastal Development Permit to allow for the construction of a single family residence which will include:

- a. ~~1,9351,097~~ square feet of living space;
- b. ~~1,040814~~-square foot basement;
- c. ~~338280~~-square foot mezzanine;
- d. ~~242239~~-square foot garage and 200-square foot carport; and,
- e. ~~18079~~-square foot ~~covered~~ deck.
- f. The residence would consist of ~~one main floor~~ two stories with a mezzanine and a basement.
- g. The footprint of the house would be ~~1,040863~~ square feet.
- h. The maximum width of the structure would be 19 feet, and the maximum length would be ~~95-70~~ feet.
- i. An approximately 200-square foot paved driveway would provide access from Studio Drive.
- j. The maximum height of the residence would be 15 feet above the centerline elevation of Studio Drive.
- k. ~~The basement would be located below the elevation of Studio Drive.~~
- l. ~~The applicant proposes a cantilevered design, which would be elevated above the sandy beach. This portion would include approximately 325 square feet of living space and a 180 square foot covered deck.~~

RECOMMENDATION

Site Development

- ~~2. The applicant shall submit a revised site plan to the Department of Planning and Building for review and approval. The revised plan shall indicate the following, and development shall be consistent with this revised and approved plan:~~

- a. ~~Driveway width not to exceed 18 feet.~~
- b. ~~Boulder rip rap, rock, or other shoreline protective devices shall be removed from all plans. Shoreline protection devices are not a part of this project description.~~
- c. ~~Deck railing not to exceed 36 inches.~~
- d. ~~25 foot rear setback with no structures or overhangs within this setback area.~~

- ~~3-2.~~ At the time of application for construction permits, plans submitted shall show all development consistent with the approved site plan, floor plan, architectural elevations, and landscape plan and shall be in conformance with condition no. 2-1 above.

Biological Resources

- ~~43.~~ (BR/mm-3) At the time of application for construction permits all grading plans shall clearly show the location of project delineation fencing, including protection fencing surrounding the Monterey cypress tree on the southern property boundary.

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- | 54. (BR/mm-5) At the time of application for grading permits, all applicable plans shall clearly show stockpile and staging areas. Stockpiles and staging areas shall not be placed in areas that have potential to experience significant runoff during the rainy season. All project-related spills of hazardous materials within or adjacent to project sites shall be cleaned up immediately. Spill prevention and cleanup materials shall be on-site at all times during construction. The staging areas shall conform to standard BMPs applicable to attaining zero discharge of storm water runoff. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills. Maintenance, cleaning, and refueling of equipment and vehicles shall not be permitted onsite, within adjacent beach areas, or on Studio Drive.

- | 65. (BR/mm-7) Upon application for construction permits, the following measure shall be included on all applicable plans: The applicant shall avoid ground disturbing activities conducted during the snowy plover nesting season to the extent feasible. If work activities must occur during the nesting season the following measures shall be taken:
 - a. Prior to installation of the project delineation fencing and the commencement of site grading, a qualified biologist shall conduct a series of pre-construction nesting bird surveys for western snowy plover. Surveys shall be conducted every other day for two weeks prior to any project related disturbances.
 - b. Surveys for snowy plovers shall include walking through all potential nesting and foraging habitat within 300 feet of the site on each survey day. The survey area shall include all available snowy plover nesting habitat within 300 feet of anticipated project activities.
 - c. The number of snowy plover individuals observed and their activities (e.g. nesting, foraging, resting, etc.) shall be documented. All documented occurrences would be reported to USFWS and documented on the CNDDDB.
 - d. If nesting activity is identified, all project activities within 300 feet of the nest shall be delayed until the nesting activity has ceased.
 - e. During construction, the environmental monitor shall conduct snowy plover surveys twice a week (preferably two to three days apart).

- | 76. (BR/mm-8) Upon application for construction permits, the following measure shall be included on all applicable plans: If commencement of construction begins between March and September, the environmental monitor shall conduct pre-construction nesting bird surveys. If nesting activity is identified, the following measures shall be implemented:
 - a. If active nest of common passerine or shorebird species' are observed in the work area or within 100 feet of the work area, construction activities shall be modified and or delayed as necessary to avoid direct take or indirect disturbance of the nests, eggs, or young.
 - b. If active nest sites of raptors or other special-status species are observed within the work area or 300 feet of the work area, the environmental monitor shall establish a suitable buffer around the nest site. Construction activities in the buffer zone shall be prohibited until the young have fledged the nest and achieved independence.
 - c. Active raptor or special-status species nests should be documented by a qualified biologist and a letter report should be submitted to the County, USFWS, and CDFW, documenting project compliance with the MBTA and applicable project mitigation measures.

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- 87.** (BR/mm-9) Upon application for construction permits, the following measure shall be included on all applicable plans: Prior to site grading, the environmental monitor shall conduct a survey for coast horned lizard and other reptiles. The surveyor shall utilize hand search methods in areas of disturbance where coast horned-lizards are expected to be found (e.g., under shrubs, other vegetation, or debris). Any lizards located during this survey should be safely removed from the construction area and placed in suitable habitat.

Noise

- 98.** (N/mm-1) Upon application for building permits, the project applicant shall include in the project design the following standard mitigation measures for interior noise mitigation provided in the Noise Element for levels in the 60-65 dBA range:
- Air conditioning or a mechanical ventilation system;
 - Windows and sliding glass doors mounted in low air infiltration rate frames (0.5 cubic feet per minute or less, per American National Standards Institute [ANSI] specifications); and,
 - Solid core exterior doors with perimeter weather stripping and threshold seals.

Water

- 409.** (WAT/mm-1) Upon application for construction permits, the applicant shall submit grading and construction plans showing BMPs, and shall implement BMPs during grading and construction activities. BMPs shall include, but not be limited to, the following:
- Erosion control barriers shall be applied, such as silt fences, hay bales, drain inlet protection, and gravel bags;
 - Disturbed areas shall be stabilized with vegetation or hard surface treatments upon completion of construction in any specific area.
 - All inactive disturbed soil areas are required to be stabilized with both sediment and temporary erosion control prior to the onset of the rainy season (October 15 to April 15).

Coastal Hazards

- 44.10.** All buildings or structures shall be elevated on adequately anchored pilings or columns and securely anchored to such pilings or columns so that the lowest horizontal portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood elevation level. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state or local building standards.
- 42.11.** All new construction and other development shall be located on the landward side of the reach of mean high tide.
- 43.12.** Man-made alteration of sand dunes that would increase potential flood damage is prohibited.
- 44.13.** The Director of Planning and Building and/or the Public Works Director shall obtain and maintain the following records:
- Certification by a registered engineer or architect that a proposed structure complies with Subsection D.3.a.

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- b. The elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings or columns) of all buildings and structures, and whether such structures contain a basement.

14-15. The applicant shall submit a drainage plan for review and approval by County Public Works Department. The applicant shall show the finished floor at a minimum of one foot above the 100 year storm surge level for review and approval by County Public Works and the Department of Planning and Building.

Water

- 15-14. (WAT/mm-2) Prior to issuance of grading and construction permits, the applicant shall submit a copy of the RWQCB-issued stormwater construction permit. The permit shall be on-site during all major grading and construction activities.

Fees

- 16-15. Prior to issuance of a construction permit, the applicant shall pay all applicable school and public facilities fees.

Public Works

- 17-16. Prior to issuance of a construction permit, the applicant shall apply for and obtain an encroachment permit for any improvements within the right of way from the County Department of Public Works.

- 18-17. The applicant shall submit a drainage plan for review and approval by County Public Works Department. The applicant shall show the finished floor at a minimum of one foot above the 100 year storm surge level for review and approval by County Public Works and the Department of Planning and Building.

Services

- 19-18. Prior to issuance of a construction permit, the applicant shall submit to the Development Review staff evidence from the 19-18 that all of their requirements, including payment of fees, have been met.

- 20-19. Prior to issuance of a construction permit, the applicant shall provide a letter from the 10 stating that they are willing and able to service the property.

- 21-20. Prior to issuance of a construction permit, the applicant shall receive any necessary approvals from the Regional Water Quality Control Board.

Fire Safety

- 22-21. Prior to issuance of a construction permit, the applicant shall provide the county Department of Planning and Building with a fire safety plan approved by the Cayucos Fire Protection District.

Lighting

- 23-22. Prior to issuance of a construction permit, the applicant shall prepare a lighting plan for review and approval. The plan shall comply with the requirements of 23.04.320 (outdoor lights) of the Coastal Zone Land Use Ordinance.

Biological Resources

- 24-23. (BR/mm-1) Prior to issuance of construction permits, the applicant shall submit documentation verifying designation of a qualified environmental monitor for all measures requiring environmental mitigation to ensure compliance with Conditions of Approval and EIR mitigation measures. The monitor shall be responsible for: (1) ensuring that procedures for verifying compliance with environmental mitigations are

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followed; (2) lines of communication and reporting methods; (3) daily and weekly compliance reporting; (4) construction crew training regarding environmentally sensitive areas; (5) authority to stop work; and (6) action to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the affected natural resource agencies (e.g., USACE, CDFW, RWQCB, California Coastal Commission, USFWS, and the County).

- 2524.** (BR/mm-6) Prior to issuance of construction permits, the applicant shall submit a detailed sediment and erosion control plan for approval, which shall address both temporary and permanent measures to control erosion and reduce sedimentation. Erosion and soil protection shall be provided on all cut and fill slopes. Revegetation shall be facilitated by mulching, hydro-seeding or other methods, and shall be initiated as soon as possible after completion of grading, and prior to the onset of the rainy season (October 15). Permanent revegetation and landscaping shall emphasize native shrubs, and trees, to improve the probability of slope and soil stabilization without adverse impacts to slope stability due to irrigation infiltration and long-term root development. All plans shall show that sedimentation and erosion control measures are installed prior to any other ground disturbing work.

Aesthetics

- 26-25.** (AES/mm-1) Prior to issuance of the building permit, the applicant shall submit interior and exterior lighting plans to the Department of Planning and Building for review and approval consistent with the following:
- The point source of all exterior lighting shall be shielded from off-site views, including beach areas.
 - All required security lights shall utilize motion detector activation.
 - Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields.

Air Quality

- 2726.** (AQ/mm-2) Prior to issuance of construction permits, the applicant shall include the following measures on applicable grading and building plans:

d Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors;

- Diesel idling within 1,000 feet of sensitive receptors is not permitted;
- Use of alternative fueled equipment is recommended whenever possible; and,
- Signs that specify the no idling requirements must be posted and enforced at the construction site.

d Section 2485 of Title 13, the California Code of Regulations limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:

- Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and,
- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any

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location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation.

- f. Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5-minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

~~d. Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation: www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.~~

- g. Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation: www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf.
- h. Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5 minute idling limit.

Geology and Soils

~~2827.~~ (GS/mm-1) Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the recommendations identified in the Engineering Evaluation (Shoreline Engineering 2012) and Updated Geotechnical Investigation (GSI Soils, Inc.) dated December 27, 2011, specifically the recommendations identified in Section 5.2 – Preparation of the Building Pad, Section 5.3 – Structural Fill, Section 5.4 – Drilled Piers, Section 5.5 – Conventional Deepened Foundation, Section 5.6 – Slab Construction, and Section 5.9 – Surface and Subsurface Drainage.

~~2928.~~ (GS/mm-2) Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the recommendations identified in the Updated Geotechnical Investigation (GSI Soils, Inc.) dated December 27, 2011, and specifically the following:

- a. All surface and subsurface deleterious materials shall be removed from the proposed building area and disposed of offsite. This includes, but is not limited to, any buried utility lines, loose fills, debris, building materials, and any other surface and subsurface structures.
- b. Voids left from site clearing shall be cleaned and backfilled as recommended for structural fill.
- c. Once the site has been cleared, the exposed ground surface shall be stripped to remove surface vegetation and organic soil.

~~3029.~~ (GS/mm-3) Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the following: recommendations for slope stability identified in the Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011, specifically the recommendations identified in Section 5.10 – Temporary Excavations and Slopes; and Shoring Detail prepared by Shoreline Engineering (January 2012, updated September 20, 2012). Plans shall demonstrate how construction would be conducted such that no activity would compromise the neighboring structure. Construction of all site preparation and shoring activities shall be monitored by the project Engineer of Record, and daily monitoring reports shall be prepared and submitted to the County Department of Planning and Building on a weekly basis.

~~3430.~~ (GS/mm-4) Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which include the use of deepened pier foundations identified in the Engineering Evaluation (Shoreline Engineering, Inc.), dated January 2012, and Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011,

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specifically the recommendations identified in Section 5.2 – Preparation of Building Pad, Section 5.4 – Drilled Piers, and Section 5.5 – Conventional Deepened Foundation.

- | ~~3231~~. (GS/mm-5) Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the recommendations identified in the Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011, specifically the recommendations identified in Section 5.1 – Clearing and Stripping, Section 5.2 – Preparation of Building Pad, and Section 5.3 – Structural Fill.
- | ~~3332~~. (GS/mm-6) Prior to issuance of grading and construction permits, the applicant shall submit a drainage plan for review and approval by the County Department of Public Works. The drainage plan shall be coordinated with the sedimentation and erosion control plan, be consistent with CZLUO §23.050.036 and 040, and specifically include engineered energy dissipators and controls that would limit peak runoff to pre-development levels.

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Biological Resources

- | ~~3433~~. (BR/mm-2) Prior to the initiation of construction, the environmental monitor shall conduct environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of sensitive habitats and animal species in the immediate area. Topics of discussion shall include: general provisions and protections afforded by the Endangered Species Act; measures implemented to protect special-status species; review of the project boundaries and special conditions; the monitor's role in project activities; lines of communications; and procedures to be implemented in the event a special-status species is observed in the work area.
- | ~~3534~~. (BR/mm-4) Prior to the initiation of construction, the applicant's contractors and the environmental monitor shall coordinate the placement of project delineation fencing throughout the work areas. The environmental monitor shall field fit the placement of the project delineation fencing to minimize impacts to sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project. During construction, no project related work activities shall occur outside of the delineated work area.

Air Quality

- | ~~3635~~. (AQ/mm-1) Prior to initiation of construction, the project applicant shall implement the following dust control measures:
 - a. Reduce the amount of the disturbed area where possible;
 - b. Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (non-potable) water should be used whenever possible;
 - c. All dirt stockpile areas should be sprayed daily as needed; and,
 - d. All roadways, driveways, sidewalks, etc., to be paved should be completed as soon as possible, and building pads should be lain as soon as possible after grading unless seeding or soil binders are used.

Building Height

- | ~~3736~~. The maximum height of the project is 15 feet as measured from the centerline of the fronting Street at a point midway between the two side property lines, projected to the street centerline. Prior to approval of the roof nailing inspection, the applicant shall

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provide the building inspector with documentation that gives the height reference, the allowable height, and the actual height of the structure. A licensed surveyor or civil engineer shall prepare this certification.

Archaeology

3837. In the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:

- a. Construction activities shall cease and the Environmental Coordinator and Planning Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.
- b. In the event archaeological resources are found to include human remains, or in any other case where human remains are discovered during construction, the County Coroner is to be notified in addition to the Planning Department and Environmental Coordinator so that proper disposition may be accomplished.

3837. In the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:

Landscaping

3938. Prior to final building inspection, landscaping in accordance with the approved landscaping plan shall be installed or bonded for to ensure the implementation of landscaping. If bonded for, landscaping shall be installed within 60 days after final building inspection. All landscaping shall be maintained in a viable condition in perpetuity.

Fire Safety

4039. Prior to final inspection, the applicant shall obtain final inspection and approval from Cayucos Fire Protection District for all required fire/life safety measures.

Miscellaneous

4140. Prior to occupancy of any structure associated with this approval, the applicant shall contact the County Department of Planning and Building to have the site inspected for compliance with the conditions of this approval.

Lateral Access

4241. Prior to final inspection, the applicant shall execute and record an offer of dedication for lateral access which shall include 25 feet of dry sandy beach available at all times during the year (pursuant to the requirements of Section 23.04.420 of the Coastal Zone Land Use Ordinance).

4241. Prior to final inspection, the applicant shall execute and record an offer of dedication for lateral access which shall include 25 feet of dry sandy beach available at all times during the year (pursuant to the requirements of Section 23.04.420 of the Coastal Zone Land Use Ordinance).

4342. This land use permit is valid for a period of 24 months from its effective date unless time extensions are granted pursuant to Coastal Zone Land Use Ordinance Section 23.02.050 or the land use permit is considered vested. This land use permit is considered to be vested once a construction permit has been issued and substantial site work has been completed. Substantial site work is defined by Land Use Ordinance Section 23.02.042 as site work progressed beyond grading and completion of structural foundations; and construction is occurring above grade.

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- | 4443. All conditions of this approval shall be strictly adhered to, within the time frames specified, and in an on-going manner for the life of the project. Failure to comply with these conditions of approval may result in an immediate enforcement action by the Department of Planning and Building. If it is determined that violation(s) of these conditions of approval have occurred, or are occurring, this approval may be revoked pursuant to Section 23.10.160 of the Coastal Zone Land Use Ordinance.

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2.0 Project Description

The applicant, Mr. Jack Loperena (landowner) and architect, Mr. James Maul, request a Minor Use Permit / Coastal Development Permit (MUP/CDP) to allow for the construction of a single-family residence. A description of the project location, project history, and project elements are discussed in the sections below.

2.1 Project Location

2.1.1 Project Site

The project site is located in the unincorporated community of Cayucos, within San Luis Obispo County, California. The project site is located adjacent to State of California Department of Parks and Recreation (State Parks) property on the northern end of Studio Drive, approximately 250 feet south of the intersection of Studio Drive and Highway 1. The project site consists of a single 3,445-square-foot parcel (Assessor Parcel Number 064-253-007).

2.1.2 Project History

The applicant submitted an application for a MUP/CDP in May of 2006. At the time, the environmental document prepared and issued by the County was a Mitigated Negative Declaration (MND) (August 9, 2007). A Planning Department Hearing was scheduled for August 17, 2007, to consider the proposed project and MND. At the hearing, staff requested a continuance until September 21, 2007 because the MND had been re-issued and re-noticed, and required a 30-day public review period. On August 23, 2007, County staff received a Request for Review of the MND, and requested that the project be continued off calendar to address issues raised in the Request for Review. Based on the comments included in the Request for Review, County staff consulted with County experts in geology, cultural resources, emergency services, air quality, and public works and drainage. Information and data obtained from County experts were incorporated into an amended MND, which was re-circulated for public review (April 2, 2009). A Planning Department Hearing was scheduled for May 15, 2009. A Request for Review of the amended MND was received by County staff on April 16, 2009, and County staff requested that the project be continued off calendar a second time.

Based on the issues raised in the April 2009 Request for Review, the County Environmental Coordinator determined that a fair argument was raised regarding the significance of potential environmental impacts. Upon consideration of these issues, the applicant proposed that an EIR be prepared for the proposed project.

2.2 Project Objectives

The objectives of the project are to:

- Develop a single-family residence on Studio Drive, within an existing, developed, single-family residential neighborhood;
- Allow development consistent with the County General Plan and Local Coastal Program
- Provide coastal access

In addition, the applicant provided the following project objectives:

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- Reduce visual impacts by design;
- Avoid development on the sandy beach and minimize site grading and disruption of the natural contours; and,
- Incorporate green building considerations into the design, and maximize exposure for solar panels.

2.3 Proposed Project Description

The project evaluated in the EIR includes a proposal to grade for and construct a 3,097-square-foot residence, including approximately:

- 1,097 square feet of main floor living space
- 1,040-square-foot basement
- 338-square-foot mezzanine
- 242-square-foot garage and 200 square foot carport; and,
- 180-square-foot covered deck.

The residence would consist of one main floor and a basement. The footprint of the house would be 1,040 square feet. The maximum width of the structure would be 18 feet, and the maximum length would be 95 feet. A paved driveway would provide access from Studio Drive. The maximum height of the residence would be 15 feet above the centerline elevation of Studio Drive. The basement would be located below the elevation of Studio Drive. The applicant proposes a cantilevered design, which would be elevated above the sandy beach. This portion would include approximately 325 square feet of living space and a covered deck.

The residence would be constructed on a structural mat slab supported on deepened/deadman footings and/or drilled piers. The footing on the east side of the residence would extend the full width of the structure (18 feet), and be 6 to 8 feet deep and 18 feet long. The purpose of the deadman footings will be to resist the cantilever loading of the west side of the residence, which would extend 28 feet over the sand. The mat slab would be located at basement level (15 feet above mean sea level). Cuts varying from approximately 5 feet on the north side of the pad to 12 feet on the south side are anticipated. Temporary excavation support would be provided by steel soldier beams installed in drilled holes filled with lean concrete. The soldier beams would be lagged with steel plates to provide support during construction. The soldier beams and lagging would be removed once the excavated area is backfilled. The exterior walls of the structure would be concrete and would retain soils along the southern, eastern, and northern sides of the residence. Retaining walls will also be constructed adjacent to Studio Drive with continuous footings extending into the underlying bedrock materials.

A photovoltaic system would provide electricity for the residence, including 1,400 square feet of solar panels to be located on the south-facing slopes of the roof. Light tubes would be installed to allow outside light to filter through to the basement.

2.3.1 Proposed Grading Activities

Grading activities would disturb approximately 3,000 square feet of the 3,445-square-foot parcel, including 400 cubic yards of cut (foundation) and 150 cubic yards of fill (driveway). The average depth of cut would be 5 feet (minimum 1 foot, maximum 12 feet). Approximately 250 cubic yards of soil would be exported offsite.

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2.3.2 Proposed Drainage Plans

Proposed drainage plans include removal of an existing overside drain and construction of a new storm drain system including an overside drain with a fossil filter, stormwater inlet, and stormwater outlet with energy dissipators. Stormwater would flow from the outlet in a northwesterly direction offsite.

A concrete deck would be constructed over the new pipe system to allow entry to the property. Rainfall from the roof would be collected by a gutter system and facilitated to an underground holding tank below the driveway grade. Captured runoff would be used as gray water for toilet flushing and landscape watering. Runoff would be piped and directed westward to exit onto the beach.

2.3.3 High Pressure Gas Main

An existing high pressure gas main would be re-routed so that no structures are located over the top of the pipeline. The proposed residence would be served by the County Service Area 10A for water supply and Cayucos Sanitary District for wastewater collection, treatment, and disposal. Cayucos Fire would provide fire protection.

2.4 Revised Project Description

Based on direction from the Planning Commission, the applicant revised the project which reduced the size of the proposed project from what was evaluated in the EIR. The revised project includes a home that is approximately 16 feet shorter in living area from the proposed project and has an approximate total length of 70 feet which includes an attached deck on the west side. The original 2,917 square foot home had a length of approximately 90 feet. The revised project is approximately 2,374 square feet which includes all interior area and the single car garage (approximately 543 square feet smaller than the original proposed project). The height of the revised project is not changing from the original proposed project. The revised project includes:

- 841 square feet of main floor living space
- 814 square foot basement
- 280 square foot mezzanine
- 239 square foot garage and 200 square foot car port

All other aspects to the revised project such as the foundation and proposed site preparation are similar to the original proposed project, but are slightly smaller in size or area. The foundation will no longer need a 6' deep foundation to support the long cantilevered portion of the original design, but will include a 2' deep mat foundation. The site preparation will remain as outlined in the geotechnical recommendations in the EIR. This revised project is consistent with the project that was evaluated in the EIR and will not contain any additional impacts that were not already evaluated.

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- All written comments submitted by agencies or members of the public during the public review comment period on the Draft EIR;
- All responses to written comments submitted by agencies or members of the public during the public review and comment period on the Draft EIR;
- All written and verbal public testimony presented during noticed public hearings for the proposed project at which such testimony was taken;
- The Mitigation Monitoring and Reporting Program;
- The documents, reports, and technical memoranda included or referenced in the technical appendices of the Final EIR;
- All documents, studies, EIRs, or other materials incorporated by reference in the Draft and Final EIR;
- The Ordinances and Resolutions adopted by the County in connection with the proposed project, and all documents incorporated by reference therein;
- Matters of common knowledge to the County, including but not limited to federal, state, and local laws, regulations, and policy documents;
- Written correspondence submitted to the County in connection with the project;
- All documents, County Staff Reports, County studies, and all written or oral testimony provided to the County in connection with the project;
- The County's Local Coastal Plan, General Plan, and related ordinances;
- All testimony and deliberations received or held in connection with the project; and,
- Any other relevant materials required to be in the record of proceedings by Public Resources Code Section 21167.6(e) (excluding privileged materials).

2.8 **Findings of the Planning Commission**

The County Planning Commission makes the following findings with respect to the Loperena MUP/CDP Final EIR:

- A. The Planning Commission has reviewed and considered the documents and other information listed in Section 3.3 above.
- B. The Final EIR has been completed in compliance with CEQA.
- C. The Planning Commission has considered the information contained in the Final EIR, the public comments and responses currently and previously submitted, and the public comments and information presented at the public hearings.
- D. All information was considered by the Planning Commission before taking an action on the project.

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- E. The Planning Commission hereby finds and determines that:
1. All significant effects that can be feasibly avoided have been eliminated or substantially lessened as determined through the findings and supporting evidence set forth in Sections 7.0, 8.0, and 9.0.
 2. Based on the Final EIR and other documents in the record, specific environmental, economic, social, legal, and other considerations make infeasible other project alternatives identified in the Final EIR.
 3. Should approval of the Loperena MUP and CDP have the potential to result in adverse environmental impacts that are not anticipated or addressed by the Final EIR, subsequent environmental review shall be required in accordance with CEQA Guidelines §15162(a).

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4.0 Mitigation Measures to Avoid, Minimize or Compensate for Adverse Effects

The Final EIR has identified and discussed significant effects that will occur as a result of the proposed project. With the implementation of the mitigation measures identified in the Final EIR, these effects can be mitigated to a level of insignificance. Therefore, no statement of Overriding Consideration is required.

Mitigation Measures Impacts of the proposed project and alternatives have been classified using the categories Class I, II, III, and IV as described below:

- Class I impacts are significant and unavoidable. To approve a project resulting in Class I impacts, the CEQA Guidelines require decision makers to make findings and a statement of overriding considerations that discusses as applicable the economic, legal, social, technical and other benefits of the proposed project against the unavoidable environmental risks. The proposed project has not resulted in any Class I impacts.
- Class II impacts are significant but can be mitigated to a level of insignificance by measures identified in the Final EIR and the project description. When approving a project with Class II impacts, the decision-makers must make findings that;
 1. Changes or alternatives to the project have been incorporated that reduce the impacts to a less than significant level, or
 2. That such changes or alternatives are within the responsibility and jurisdiction of another governmental agency and not the Lead Agency making the finding, and that such other governmental agency can and should adopt the required project changes or alternatives.
- Class III impacts are adverse but not significant. Mitigation measures may still be required for these impacts as long as there is rough proportionality between the environmental impacts caused by the project and the mitigation measures imposed on the project.
- Class IV impacts would have a beneficial environmental impact.

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5.0 **IMPACTS OF THE PROJECT ON AGRICULTURE**

The findings below are for Class III impacts. Class III impacts are impacts that are adverse, but not significant. Pursuant to Section 15091(a)(1) of the State CEQA Guidelines, the Planning Commission finds that each of the following effects have been avoided or will have a less than significant impact, as identified in the Final EIR. The less than significant effects (Impacts) are stated fully in the Final EIR. The following are brief explanations of the rationale for this finding for each impact:

IMPACT A-1: Conversion of Farmland to Non-Agricultural Use

1. **Conversion of Farmland to Non-Agricultural Use** The project is located in a non-agricultural area with no agricultural activities occurring at or adjacent to the project site. The project site is classified as Urban and Built-Up Land by the DOC, Division of Land Resource Protection's Farmland Monitoring and Mapping Program (DOC 2008). No important farmland would be converted to non-agricultural use; therefore, there would be no impact.
2. **Conversion of Farmland to Non-Agricultural Use** No agricultural uses occur in the immediate vicinity of the project site. Based on the location of the project, it would not impair agricultural use of other properties in the region or result in conversion to non-agricultural uses. Therefore, there would be no impact.
3. **Conversion of Farmland to Non-Agricultural Use** The project site is within the residential land use category, and is not under Williamson Act contract. No parcels in the project vicinity are within the agricultural land use category or are subject to a Williamson Act contracts. No significant impacts to agricultural resources would to occur.

IMPACT A-2: Visual Quality

1. **Visual Quality** From surrounding viewing locations, the overall height of the project would appear visually consistent with the heights of existing houses lining Studio Drive, and particularly the existing houses closest to the site. It is anticipated that as seen from most viewpoints, the height of the project would not be unexpected at this residential location.

The project proposes a building with a distinctly modern-style architecture and form. This style of architecture is seen regularly in the Studio Drive neighborhood and throughout the community. Although residential buildings often associated with the coastal community aesthetic tend to be beach bungalow style, modern style architecture is also part of the eclectic vernacular. These mid-century style buildings often employ simple forms, and flat rooflines with clerestory windows, similar to the proposed project.

Because of the existing residential setting, and the proposed structure's general consistency with the scale and architecture of the Studio Drive neighborhood, the project would be aesthetically compatible with the area, and potential impacts to public views is considered to be *less than significant* (CEQA Class III).

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2. **Visual Resources** Because of its location on the bluff, the project would be visible from many public viewpoints and from many viewing directions. The project's proximity to the beach and Studio Drive allows for up-close viewing opportunities by the public. The greatest number of potential viewers would be traveling on Highway 1, from where the project would occupy a portion of the mid-ground view, with the Pacific Ocean in the background. From Highway 1, the project would be more noticeable from the southbound lanes, since views from the northbound lanes would be mostly blocked by adjacent development. As seen from all areas on Highway 1, the lowest portion of the building and associated retaining walls would have limited visibility. The upper part of the residence would block a portion of the existing ocean view, from both the northbound and southbound lanes of Highway 1. From the southbound lanes, blue-water ocean views and the horizon line would be blocked a minor amount. As seen from the northbound lanes, blue-water views would also be briefly blocked, however views of the horizon and of the distant coastline hills would not be affected.

Although the project would block a portion of the ocean, the effect on the viewing experience would be minor. As seen from the highway it is estimated that the project would only block an insignificant percentage of the existing available ocean view. No views of unique, historic, or singularly memorable coastal resources would be affected. The existing residential development along Studio Drive currently limits views of the ocean and beach from Highway 1. It is anticipated that to most viewers, the project's small incremental effect on the scenic vista would just appear as an extension of the existing neighborhood condition. The high quality of the scenic vista would not be affected, and the extent of view loss would be minor or even un-noticed in the context of the remaining scenic viewshed.

As seen from southbound Studio Drive, the visual effect of the project would be similar to that from Highway 1; only a small portion of the total available ocean view would be affected, and the majority of the project would be seen within the visual silhouette of the adjacent development. From northbound Studio Drive south of the project, views of the ocean are blocked by existing homes. From the northbound direction, coastal views begin to open up as the viewer approaches the project site and begins to see around the northernmost residence. With construction of the project, existing coastal view blockage in the northbound direction and directly in front of the project would be extended a distance of approximately 150 feet along the street frontage. Outside of this 150-foot section, northbound views along Studio Drive would not be affected. Because existing coastal views along the approximately one mile length of Studio Drive are currently blocked, and there is approximately 300 feet of protected ocean views to the north of the site and extending to the Old Creek parking area, the additional 150 feet of affected view would be minor. The visual affect as seen from a vehicle would be approximately one second. Because of the short length, viewing durations from pedestrian and bicyclist viewpoints would also be very brief. Similar to the views from Highway 1, the project's small incremental effect on the scenic vista would likely appear as an extension of the existing neighborhood condition. The high quality of the existing scenic vista would be unaffected, and the extent of view loss would be minor or even un-noticed in the context of the remaining scenic viewshed.

Viewpoints from the beach toward the project would be generally oriented inland and away from the ocean. From these viewing areas, scenic coastal resources such as

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the hills east of the highway are somewhat compromised by existing residential areas as well as the highway. The uppermost portions of the hills however are undeveloped and can be seen from much of the beach area. Because of the existing homes along the Studio Drive bluff, public viewers closer to the base of the bluff can see less of the hills across the highway to the east. From most beach viewpoints northwest of the project, the proposed residence would not extend beyond the visual silhouette of the adjacent development behind it. As seen from certain viewpoints directly west and southwest of the project, the upper portion of the new building would block a portion of the hillside to the northeast. From some closer viewpoints, the residence would block brief views of the ridgeline as well. Although a portion of the hillside views would be blocked by the project, the overall effect on the scenic vista would be minor. Views to the hills would not be blocked as seen from the majority of the beach area. No unique rock outcroppings or other memorable features are present within affected hillside areas. In addition, other hillside views would remain in the viewshed. The project and its subsequent effect on hillside views would appear to most viewers as an extension of the existing visual condition. Scenic ocean views from the neighborhood east of the highway would not be affected because the proposed residence would be consistent with the heights of the existing adjacent homes along Studio Drive.

Because the project would affect only a minor percentage of the available ocean and hillside views as seen from Highway 1 or from public roadways in the surrounding neighborhood or public beach, and because what would be affected would appear as an incremental extension of the existing visual condition along Studio Drive, the project's effect on scenic views is considered to be *less than significant* (CEQA Class III).

Specific Scenic Resources as Seen from the State Scenic Highway. As discussed in the previous section, the greatest number of potential viewers would be traveling on Highway 1, an Officially Designated State Scenic Highway and a National Scenic Byway. The upper part of the residence would block a portion of the existing ocean view, from both the northbound and southbound lanes of Highway 1. From the southbound lanes, blue-water ocean views and the horizon line would be blocked a minor amount. As seen from the northbound lanes, blue-water views would also be briefly blocked, however views of the horizon and of the distant coastline hills would remain.

Although the project would block a portion of the ocean, the effect on the viewing experience would be minor. As seen from the highway it is estimated that the project would only block an insignificant percentage of the existing available ocean view. No views of unique, historic, or singularly memorable coastal resources would be affected. The existing residential development along Studio Drive currently limits views of the ocean and beach from Highway 1. It is anticipated that to most viewers, the project's small incremental effect on the scenic vista would just appear as an extension of the existing neighborhood condition. The high quality of the scenic vista would not be affected, and the extent of view loss would be minor or even un-noticed in the context of the remaining scenic viewshed.

As a result, the project would have no adverse effect on scenic resources as seen from Officially Designated State Scenic Highway 1. Because the project would affect only a minor percentage of the available ocean and hillside views as seen from

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Highway 1 and because what would be affected would appear as an incremental extension of the existing visual condition along Studio Drive, the project's effect on scenic vistas is considered to be *less than significant* (CEQA Class III).

3. The project site occupies one of the more visible residential locations in the community. The proximity to Highway 1 and Morro Strand State Beach greatly increases the potential number of viewers of the project. The volume of traffic on Highway 1 in the vicinity of the project averages approximately 11,000 vehicles per day (Caltrans 2008). Because of this large number of viewers and highly visible location, the appearance of the project would have an influence on the visual character of the neighborhood. Any development of the site would include an inherent alteration of visual character. The change in character brought about by this project would be most noticeable in terms of its height, form, and architecture.

The project site itself is mostly covered with non-native vegetation such as iceplant and ornamental plantings. The visual context of the site is one of a residential beach neighborhood. Although the site's topography provides some visual interest to the setting, it is not memorable or unique. The exposed rock area along western portion of the site is a relatively insignificant portion of a larger, continuous rock face extending south along the bluffs. As noted above, the height of the project would not be unexpected at this residential location and the proposed architecture is aesthetically compatible with the character of the existing residences in the Studio Drive neighborhood.

Because of the existing residential setting, and the proposed structure's general consistency with the scale and architecture of the Studio Drive neighborhood, the effect of the project on visual character and quality of the site is considered to be *less than significant* (CEQA Class III).

4. As mentioned previously, the visual context of the site is one of a residential beach neighborhood. The project site is mostly covered with non-native vegetation such as iceplant and ornamental plantings. Although the site's topography provides some visual interest to the setting, it is not memorable or unique. The exposed rock area along western portion of the site is a relatively insignificant portion of a larger, continuous rock face extending north-south along the bluffs. Furthermore, the project would not block or adversely affect views of any unique off-site geological or physical features. As a result, the effect of the project on unique geological or physical features is considered to be *less than significant* (CEQA Class III).

5. The project would result in the disturbance of approximately 3,000 square feet, including driveways, walkways, the residential structure coverage, and landscaping. This would result in the creation of construction dust, as well as short-term vehicle emissions. Long-term operational impacts would include an increase in vehicle emissions on surrounding roads. Based on the CEQA Air Quality Handbook, the project would result in less than 10 pounds per day of pollutants, which is below the threshold warranting mitigation. Therefore, potential impacts would be *less than significant* (Class III).

1. As proposed, the project would result in the disturbance of approximately 3,000 square feet, including driveways, walkways, the residential structure coverage, and landscaping. This would result in the creation of construction dust, as well as short-term vehicle emissions. Long-term operational impacts would include an increase in vehicle emissions on surrounding roads. Based on the CEQA Air Quality Handbook, the project would result in less than 10 pounds per day of pollutants, which is below the threshold warranting mitigation. Therefore, potential impacts would be *less than significant* (Class III).

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2. The project consists of a residence, which will not require the storage or use of any materials or equipment that would generate objectionable odors. Therefore, potential impacts would be *less than significant* (Class III).
3. The project is consistent with the general level of development anticipated and projected in the CAP, including promotion of residential infill in proximity to essential services and alternative transportation services. Therefore, potential impacts would be *less than significant* (Class III).
4. The proposed project would result in an increased use of vehicles and electricity, each of which generate small amounts of CO₂, N₂O, and HFCs. The APCD provided comments on the project that indicated through URBEMIS modeling that the project would result in approximately 84 pounds per day of CO₂ in the summer and 102 pounds per day in the winter (APCD Comment Letter dated December 23, 2008).

Based on *Table 1-1: Operational Screening Criteria for Project Air Quality Analysis* (SLOAPCD 2012), construction and operation of one single-family residence would not exceed 1,150 MT of CO₂e/year threshold. In addition, the project includes elements that will reduce GHG emissions, including compliance with current Title 24 Energy requirements (electricity reduction for cooling/heating), use of solar panels to reduce demand from GHG-emitting power plants, location within a garbage service area that is recycling over 50% of its wastes (electricity reduction), and requirement to recycle at least 50% of its construction wastes.

Because the project proposes only one single-family residence in an existing residential neighborhood, and is consistent with land use components necessary to meet the goals of AB32 and set forth in the Clean Air Plan, this increase in GHGs is not considered significant. Therefore, no significant adverse GHG impacts would occur as a result of the proposed project, and no mitigation measures are necessary (Class III).

5. The proposed project is consistent with the APCD's CEQA Handbook and County's EnergyWise Plan because it consists of a residential development within an urban area, in proximity to recreational resources and opportunities for alternative transportation, such as walking and bicycling. As noted above, the project includes energy-efficiency measures, including incorporation of solar energy. Potential impacts would be *less than significant* (Class III).

The project site is located within a culturally sensitive region; however, the field studies and background research conducted by the applicant's consultant and EIR archaeologist did not identify the presence of any significant cultural resources within the project site. As with any ground disturbing activities, the potential for encountering previously undocumented cultural resources exists. In the event of inadvertent discovery, compliance with Section 23.05.140 of the CZLUO will be required. Potential impacts to pre-historic resources would be *less than significant* (Class III).

1. The project site is located within a culturally sensitive region; however, the field studies and background research conducted by the applicant's consultant and EIR archaeologist did not identify the presence of any significant cultural resources within the project site. As with any ground disturbing activities, the potential for encountering previously undocumented cultural resources exists. In the event of inadvertent discovery, compliance with Section 23.05.140 of the CZLUO will be required. Potential impacts to pre-historic resources would be *less than significant* (Class III).

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2. **Historic Resources** No historic resources are located within the project site or within 0.5-mile. No impacts to historic resources are anticipated, therefore, no mitigation measures are required. No significant impact to historic resources would occur.
3. **Paleontological Resources** The proposed project would be located within formations that are not known to contain significant paleontological resources. Impacts to paleontological resources would be *less than significant* (Class III). No mitigation is required.

4. Hazardous Materials

1. **Hazardous Materials** The project does not propose the use or storage of hazardous materials; therefore, the risk of explosion or release of hazardous substances is not likely. The project would not result in the routine transport, use, or disposal of hazardous materials and does not create the potential for the release of hazardous materials through upset and/or accident conditions. Therefore, no hazards associated with the handling of hazardous materials would result. The project site is not located within 0.25 mile of an existing or proposed school, and is not included on the Cortese List or any other list of hazardous materials sites and would not create associated risks to the public or environment. No impacts due to hazards or hazardous materials would occur.

2. **Emergency Evacuation** Although it places residential uses within an area covered by the Dam and Levee Failure Evacuation Plan, Cities Nuclear Power Plant Emergency Response Plan, and Tsunami Response Plan, the proposed use is suitable for the location and within the general level of development projected in the response plans. The proposed project would not inhibit emergency alert, evacuation or response actions and would not conflict with any regional evacuation plan, because it is located with an existing residential lot, on a paved roadway (Studio Drive). No impacts to emergency response or evacuation plans will occur.

3. **Airport Review** The project site is not located within any airport review area and would not expose people to safety risks associated with airport flight patterns, therefore no impacts will occur.

4. **Fire Hazard** The project is not located within a high fire hazard zone and does not present a significant fire safety risk, therefore no impacts will occur.

5. **Tsunami** The County Office of Emergency Services prepares for catastrophic (though highly unlikely) worst case scenario events that would include a 50 foot tsunami wave run-up. However, based on review by the County Geologist and the project consultant geologist, a 9.5 foot wave run-up is considered more appropriate for a 100-year tsunami event. The project has been designed and conditioned to avoid impacts from a 100-year tsunami event and potential impacts related to wave run-up and tsunami hazards for the proposed development will be taken into account through the foundation design and finished floor elevations of the proposed residence.

An in depth analysis of tsunami and/or wave run-up hazards associated with the proposed project is included in Section 4.3, Geology and Soils. Refer to that section

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for additional information. No other significant adverse impacts would occur as a result of the proposed project, and no mitigation measures are necessary (Class III).

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Mitigation of seismic hazards due to strong ground motion is addressed through proper structural design in accordance with the applicable building codes (presently the 2009 International Building Code [IBC] and 2010 California Building Code [CBC] documents related to Earthquake Loads) at the time of building permit application. Seismically-induced ground failure mechanisms include: landsliding, liquefaction, lurching, differential compaction, lateral spreading, and dry sand settlement.

Landslides. The central coast region of California has not yet been mapped by the California Geological Survey under the Seismic Hazards Mapping Act program. No landslides have been mapped or found on the property. A large earthflow landslide terminates approximately 400 feet northeast of the site across Highway 1. The landslide and the project site are separated by over 400 feet of very low gradient topography that is overall flatter than 15:1 (horizontal:vertical). Significant portions of that horizontal distance are nearly level (e.g., the width of Highway 1). Consequently the potential for risk of landslides adversely impacting the site is considered to be low. Potential impacts related to landslides are *less than significant* (Class III), and no mitigation measures are necessary.

Earthquakes. As noted in Section 4.3.1.1 Existing Conditions, Regional Setting, Geologic Setting, fault systems are present in the region; however, no known active faults trend through the property. No topographic anomalies in the area are suggestive of faulting, and the potential for surface faulting and ground rupture at the site to be low. Therefore, potential impacts would be *less than significant* (Class III), and no mitigation measures beyond compliance with the CBC are necessary.

Earthquake-Induced Landsliding. The only significant slope that would exist at the site upon completion of the project is the fill slope descending from Studio Drive to the property; however, the plans indicate this slope will be filled over and supported by retaining walls; hence the potential for seismically-induced landsliding is low. Therefore, potential impacts would be *less than significant* (Class III), and no mitigation measures are necessary.

Lateral Spreading. Conditions that typically induce lateral spreading include liquefaction of a subsurface layer or layers of soil, and site topography that contains

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an open topographic face which exposes the soil profile overlying the liquefiable layer(s). Both conditions potentially exist at the site but require further review by the project applicant's consultants. Based on the proposed foundation design, site grading, and confined condition of the sands near the center of the building pad, the potential for lateral spreading displacements would be negligible (GSI Soils, Inc. 2011). Therefore, based on the design of the project, potential impacts would be *less than significant* (Class III), and no mitigation beyond compliance with the CBC is necessary.

Dry Sand Settlement. Due to the limited depth of sand (approximately 6 feet) within the building pad area, dry settlements of these sands during seismic ground shaking is expected to be less than 0.5 inch. With the proposed grading, these settlements are anticipated to be less than 0.25 inch (GSI Soils, Inc. 2011). Therefore, potential impacts would be *less than significant* (Class III), and no mitigation beyond compliance with the CBC is necessary.

Land Subsidence Land subsidence occurs when large amounts of groundwater have been excessively withdrawn from an aquifer. Water supply in Cayucos is provided by the Whale Rock Reservoir and Nacimiento Water Project. There is no identified Level of Severity for water supply in the Cayucos area (County of San Luis Obispo 2012), and the project site is not located within a designated groundwater basin. There is no evidence of land subsidence on or in the vicinity of the project site, and implementation of the project would not create a demand for water supply that would result in land subsidence. Therefore, no significant impact would occur.

2. **Alquist-Priolo Earthquake Fault Zone** The project site is not located within an Alquist-Priolo Earthquake Fault Zone as defined by maps prepared by the California Geological Survey. Therefore, no significant impact would occur.

3. **Soil Erosion** In the long term, the project would not create any changes that would result in significant soil erosion. The proposed drainage plan includes stormwater diffusers to slow down runoff during rain events and minimize the potential for storm-related beach erosion. Therefore, potential long-term impacts would be *less than significant* (Class III), and no mitigation beyond compliance with existing regulations is necessary. Long-term erosion related to sea level rise and wave runup is discussed below under Coastal Hazards.

4. **Drainage** As noted above, the project includes a drainage plan that would replace the existing County drain pipe with a new stormwater system. This system would change the direction of surface runoff from the street onto the beach, but would not be significantly different than the current situation. The project would create additional area of impervious surface, and includes a rain barrel and stormwater management system, consistent with the County's regulations and policies for Low Impact Development (LID). Based on the location, size, and design of the project, it would not significantly change the rates of soil absorption or amount and direction of surface runoff. Therefore, potential impacts would be *less than significant* (Class III), and no mitigation beyond compliance with existing regulations is necessary.

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5. 100-year Flood Hazard The project site is not located within a 100-year flood hazard zone, and the area proposed for development is located above and outside the AE/VE hazard zone which has a 100-year flood elevation of 10 feet (NGVD29), which is approximately equivalent to elevation 12.92 feet NAVD88. The proposed basement finish floor elevation of 15 feet NAVD88 is approximately 2.08 feet higher than the AE/VE flood elevation. Therefore, no significant impact would occur.

6. Applicable geology and soils-related goals and policies identified in the County's Safety Element include the following:

Geologic and Seismic Hazards, Goal S-5: Minimize the potential for loss of life and property resulting from geologic and seismic hazards.

Based on compliance with the CBC, County Code, and incorporation of recommendations identified in the Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011, and Engineering Evaluation (Shoreline Engineering), dated January 2012, the project would be consistent with this goal.

Geologic and Seismic Hazards, Policy S-21: Slope Instability. The County acknowledges that areas of known landslide activity are generally not suitable for residential development. The County will avoid development in areas of known slope instability or high landslide risk when possible, and continue to encourage that developments on sloping ground use design and construction techniques appropriate for those areas.

The project site is not located within an area of high landslide risk; however, short-term slope instability may occur during construction. Based on incorporation of recommendations identified in the Updated Geotechnical Investigation and Engineering Evaluation, which include use of a temporary shoring system to stabilize cut slopes during excavation and construction, the project would be consistent with this policy.

Geology and Seismic Hazards, Policy S-23: Coastal Bluffs. Development shall not be permitted near the top of eroding coastal bluffs.

The project site is unique in that the underlying geology consists of a fluvial bluff, which has been buried under artificial fill. The Technical Analysis (Cotton Shires and Associates 2011), which is included in Appendix C (Geology and Soils Background Information) and incorporated by reference in this EIR section, included an assessment of potential coastal erosion hazards, and did not identify any significant adverse effects or safety hazards related to coastal erosion. Therefore, the project is consistent with the intent of this policy.

Geology and Seismic Hazards, Program S-63: Require coastal bluff erosion studies to determine the rate of erosion and the resulting safe distance from the top of the bluff for development, in accordance with the LCP.

Preparation of the EIR included a comprehensive analysis of potential erosion hazards, both short- and long-term. Based on the analysis, the project would not result in a safety issue related to erosion, thus meeting the intention of this Program.

Geologic and Seismic Hazards, Implementation Measures, Standard S-56: For developments in areas of known slope instability, landslides, or slopes steeper than 20

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Therefore, the potential for significant erosion due to sea level rise would not be significant in this location.

Oceanographic Flooding Hazard

The primary hazard due to flooding from ocean waters is storm surge. The highest recorded water elevation on record in the vicinity of Cayucos (Port San Luis) is 7.57 feet NAVD88 and includes all oceanographic effects on sea level except for long-term sea level rise predictions (NOAA 2011). Incorporating a potential sea level rise of 2.5 feet in the next 100 years, the future design maximum sea level would be 10.1 feet NAVD88, which is considered to be in excess of a 100-year recurrence interval water level. The proposed residence would be located at and above an elevation of 15.0 feet NAVD88; therefore, the site would not be adversely affected by flooding from the ocean over the next 100 years.

Breaking Wave Elevation

The project incorporates a cantilevered design. The proposed first floor would be located at elevation +26 feet NAVD88, and will extend a significant distance ocean-ward beyond the basement floor; therefore, the Coastal Hazards and Wave Runup report (GeoSoils, Inc. 2011, 2012) evaluated the potential maximum breaking wave crest elevation. The breaking wave elevation analysis calculated that the maximum wave crest elevation at the project site is approximately +14.5 feet NAVD88, which is well below the proposed cantilevered first floor elevation of +26 feet NAVD88. Therefore, the cantilevered portion of the structure would not be adversely affected by breaking wave forces.

Wave Runup Hazard

A wave runup analysis was performed under extreme (worst-case) design oceanographic conditions including storm surge, sea level rise of 2.5 feet over the next 100 years, and scour of the beach in front of the rock outcropping down to elevation 3.1 feet NAVD88, utilizing a design wave height of 5.5 feet. In this worst-case scenario, the maximum wave runup would be at elevation +22.7 feet NAVD88, and may reach the basement of the proposed residence at +15.0 feet NAVD88 over the next 100 years (GeoSoils, Inc. 2011). However, the runup is characterized as a pulse of water reaching the basement wall rather than a continuous or sustained flow over time. Based on calculations, the depth of the water overtopping the rock outcrop and reaching the residence would be approximately 0.14 foot deep. The runup analysis indicates that the velocity of the wave runup bore will not be sufficient to cause damage to the structure, assuming the basement wall is constructed of steel-reinforced concrete; however, the structure will be subject to spray and splash from wave runup striking the rock outcropping. The rock outcropping at its average elevation of 17 feet NAVD88 would be overtopped by the design wave (5.5 feet) at a rate of about 0.27 cubic feet/second-foot. Based on this low height of water (0.14 foot) and relatively low velocity, the proposed project would not be adversely affected. In addition, based the initial low velocity, and reduction in wave height and velocity following potential contact with the proposed basement wall, any wave refraction would not adversely affect the adjacent property.

In addition to wave runup, the analysis considered exposure to tsunami. Based upon review of historical data and tsunami forecast modeling by the University of Southern California Tsunami Research Center, a 6.5-foot-high tsunami wave occurring at the project site would be a 500-year recurrence interval event. The wave runup analysis

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used a design wave height of 5.5 feet, which also represents a suitable site-specific tsunami runup at the site.

As proposed, the basement would be located at elevation 15 feet NAVD88, and basement concrete would be reinforced with steel; therefore, wave runup will not adversely impact the proposed residence over the next 100 years. An extreme tsunami may reach as high as the basement, but, for the reasons stated above, a tsunami will not adversely impact the residence. Based on the analysis presented above, and incorporated by reference from the coastal hazards and wave runup analysis report (GeoSoils, Inc. 2011, 2012), no significant impacts related to coastal hazards, including sea level rise, shoreline erosion, wave runup, and coastal flooding would occur, and the proposed residence would neither create nor contribute to erosion, geologic instability, or destruction of the site or adjacent area.

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1□ □□□□□□ □□□□□□ □ □□ □□□□□ □□□□ □□□□□ The project proposes construction of one single-family residence in an existing neighborhood. The project would result in the addition of some vehicle trips on local roads (approximately 9.6 per day), but the traffic noise associated with a single residence is not considered significant. Therefore, the project would not generate significant increases in the ambient noise levels for adjoining areas.

The project would also generate construction-related noise and vibration associated with construction and development of the structure. However, the project does not propose any significant sources of man-made vibration (i.e., sonic booms, blasting, pile driving, pavement breaking, and demolition). Per the County's Land Use Ordinance, §23.06.042d, construction noise between the hours of 7:00 a.m. and 9:00 p.m. on Mondays through Fridays, and 8:00 a.m. and 5:00 p.m. on Saturdays and Sundays, is exempt from control or mitigation. This type of noise is considered a short-term impact and *less than significant* (Class III). Therefore, the project is not expected to expose people to severe noise or vibration, or to result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

2□ □□□□□ □□□□ □□ □□□□□□□□ The proposed project is not located within any airport land use plan or two miles of a public or private airstrip, and would not expose people to excessive noise levels, therefore no impacts are expected to occur.

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The proposed project is not located within a high fire severity zone, and response times are generally two to three minutes. Although the Cayucos Fire Protection District and County Sheriff's Office are considered understaffed for the populations

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they serve, the addition of a single residence within an existing neighborhood would not have a significant effect upon fire or police protection, and no new or altered emergency services would be required. Area schools, roads and parks are operating at acceptable levels of service, and the project will be served by private solid waste disposal, water, and wastewater systems, all of which have sufficient capacity to accommodate the proposed residential use. Therefore, no significant impact on these services would result from the project.

All stormwater would be handled onsite, either collected and used as gray water for toilet flushing and landscaping or directed westward onto the beach. Therefore, no new stormwater drainage facilities or expansion of existing facilities would be required. County landfills have sufficient permitted capacity to accommodate the small increase in solid waste resulting from the proposed project. Applicable water service providers and wastewater treatment facilities are capable of supporting the proposed development and no new entitlements, new facilities or expansion of existing facilities would be required. The project would comply with all statutes and regulations related to solid waste. The project would not adversely affect a community water service provider or community wastewater service provider, therefore no impacts are expected to occur.

2. The project would connect to the existing sewer system managed by the Cayucos Sanitary District, and would not require an onsite system subject to the Central Coast Basin Plan. The Cayucos Sanitary District is currently operating at acceptable levels and can accommodate the proposed project (one residence).

No significant adverse impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

1. The project proposes the development of one single-family residence in an existing developed residential area, and would not create a significant increase in the use or demand of recreational areas or facilities. The project applicant will pay all applicable public facility fees to address increased demand on area recreational facilities. Therefore, potential impacts would be *less than significant* (Class III).

1. The project proposes the development of one single-family residence in an existing developed residential area, and would not create a significant increase in the use or demand of recreational areas or facilities. The project applicant will pay all applicable public facility fees to address increased demand on area recreational facilities. Therefore, potential impacts would be *less than significant* (Class III).

2. Beach access is provided directly adjacent to the project site, and lateral access would be provided on the sandy portion of the lot. Access to trails, parks or other recreational opportunities would not be impacted by the proposed development. The future Morro Bay to Cayucos connector bike path would be located along Studio Drive, and development of the project would not affect this project, because it is limited to the existing residential parcel boundaries. The project does not include any components for the development of recreational facilities that may have an adverse physical effect on the environment. No significant adverse impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

1. The project proposes one single-family residence within an existing residential area with all roads operating at acceptable

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levels. While the project would add trips to the local circulation system (approximately 9.6 per day), all roads in the area are operating at acceptable levels and are capable of accommodating the small increase in trips. A referral was sent to the County Department of Public Works requesting their review of the project. They had no comments related to traffic concerns associated with the proposed project other than that an encroachment permit would be required for the new driveway. Therefore, no significant increase to local or areawide circulation systems is anticipated, and potential impacts would be *less than significant* (Class III).

2. The project includes a private driveway, which would connect to Studio Drive. Based on review by the County Department of Public Works, a standard Encroachment Permit will be required. The project does not include any features that would result in unsafe traffic conditions; therefore, potential impacts would be *less than significant* (Class III).
3. The project consists of a single-family residence on an existing lot. The site is accessible to emergency services by Studio Drive, which connects to Highway 1, and occupants have clear access out of the area. Potential impacts related to emergency access would be *less than significant* (Class III).
4. Sufficient parking for the proposed residential development is proposed at the project site, including a private driveway, carport, and garage. Therefore, potential impacts related to parking capacity would be *less than significant* (Class III).
5. The project is a single-family residence; therefore this threshold does not apply and no impact would occur.
6. Transportation and circulation policies relevant to the proposed project exist in local and state documents. These documents generally encourage the development of alternative transportation as a means to reduce traffic congestion and increase safety, among other things. The policy documents reviewed as part of this EIR section include the County's Estero Area Plan and Bikeways Plan. The proposed project is *consistent* with these plans because it consists of a single-family residence located within an existing residential neighborhood, with access to pedestrian and bicycle paths.
7. The project is not located within two miles of a public or private airport or airstrip, and is not located at an elevation that would affect air traffic patterns. Modern solar panel technology incorporates anti-glare coatings that absorb, rather than reflect, sunlight. Therefore, the project would not affect air traffic, and potential impacts would be *less than significant* (Class III).

The project is not located within two miles of a public or private airport or airstrip, and is not located at an elevation that would affect air traffic patterns.

1. The project site is not located in an area where development would affect the quality of groundwater resources; therefore, no impact would occur.
2. The project would not create a demand of water exceeding the capacity of the water service provider, and would not require a significant level of additional groundwater pumping

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by the provider to serve the project. Therefore, the project would not change the quantity or movement of groundwater.

As noted above, the project includes improvements to the existing stormwater drain onsite. The project has been reviewed by the County Department of Public Works, and the proposed plan has been approved at a preliminary level by County staff. Stormwater currently flows into a County drain, and onto the beach via the stormwater system or surface flow. The proposed system would direct water through the project site and onto the beach. Energy dissipaters are included to slow down storm water flow and minimize the potential for erosion at the outlet. Based on the proposed plan, and compliance with existing regulations identified in the County CZLUO, potential impacts would be *less than significant* (Class III).

3. **Water Resources** **Long-term** Long-term use of a single-family residence is expected to require approximately 0.270 afy, or 4,375.8 gallons/month (City of Santa Barbara 1989; County of San Luis Obispo 2011). As noted above, the project would be served by CSA 10A, which has adequate water supply to serve the project. A preliminary will-serve letter was issued for the project in 2006. Therefore, potential impacts would be *less than significant* (Class III).

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6.0 Mitigation Measure M-1

Pursuant to §15091(a)(1) of the CEQA Guidelines, the Planning Commission finds that, for each of the following significant effects as identified in the Final EIR, changes or alterations (mitigation measures) have been required in, or incorporated into, the project which avoid or substantially lessen each of the significant environmental effects as identified in the Final EIR. The significant effects (impacts) and mitigation measures are stated fully in the Final EIR. The following are brief explanations of the rationale for this finding for each impact:

6.1 Visibility of Night Lighting

6.1 Visibility of Night Lighting	
Visibility of night lighting would affect views resulting in a direct long-term impact.	
Mitigation	<p>AQ/mm-1 Prior to issuance of the building permit, the applicant shall submit interior and exterior lighting plans to the Department of Planning and Building for review and approval consistent with the following:</p> <ol style="list-style-type: none"> The point source of all exterior lighting shall be shielded from off-site views, including beach areas. All required security lights shall utilize motion detector activation. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields. Lumination from exterior lights shall be the lowest level allowed by public safety standards.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	The EIR analysis assumes that exterior lighting would be included as part of the project. Because of the project's configuration and its proximity to public roadways and the beach, night lighting would be seen from the surrounding area. Unshielded light sources or bright-lights reflected on exterior walls would result in potential impacts. Fog is a common atmospheric condition of the area and increases the "glow-effect" as potentially seen from great distances. Although existing night lighting can be seen in the adjacent neighborhood, the project would increase the visibility of night lighting in the area.

6.2 Construction of Proposed Project

6.2 Construction of Proposed Project	
Construction of the proposed project would generate fugitive dust, which could become a nuisance to local residents and businesses in proximity to the construction site.	
Mitigation	<p>AQ/mm-1 Prior to initiation of construction, the project applicant shall implement the following dust control measures:</p> <ol style="list-style-type: none"> Reduce the amount of the disturbed area where possible; Use water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (non-potable) water should be used whenever possible; All dirt stockpile areas should be sprayed daily as needed; and

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CEQA Finding 1	
	d. All roadways, driveways, sidewalks, etc., to be paved should be completed as soon as possible, and building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	The project is located in proximity to sensitive surrounding land uses, and homeowners in the vicinity of the proposed project have expressed concern related to the impacts construction activities would have on surrounding properties. Construction activities can generate fugitive dust, which could be a nuisance to residents and businesses in proximity to the project site. Dust complaints could result in a violation of the APCD's 402 Nuisance Rule. In addition, operation of construction equipment, including equipment idling, generates diesel particulate matter, which can have an adverse effect on sensitive receptors.

CEQA Finding 2	
Use of construction equipment would generate diesel particulate matter, potentially resulting in an adverse effect to sensitive receptors within 1,000 feet of the project site.	
Mitigation	<p>CEQA Finding 2 Prior to issuance of construction permits, the applicant shall include the following measures on applicable grading and building plans:</p> <p>d. Mitigation Measures for Diesel Emissions</p> <ol style="list-style-type: none"> Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors; Diesel idling within 1,000 feet of sensitive receptors is not permitted; Use of alternative fueled equipment is recommended whenever possible; and, Signs that specify the no idling requirements must be posted and enforced at the construction site. <p>d. Mitigation Measures for Diesel Emissions</p> <ol style="list-style-type: none"> Section 2485 of Title 13, the California Code of Regulations limits diesel-fueled commercial motor vehicles that operate in the State of California with gross vehicular weight ratings of greater than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles: <ol style="list-style-type: none"> Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation; and, Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5.0 minutes at any location when within 100 feet of a restricted area, except as noted in Subsection (d) of the regulation. Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5 minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following web site: www.arb.ca.gov/msprog/truck-idling/2485.pdf. <p>d. Mitigation Measures for Diesel Emissions</p> <ol style="list-style-type: none"> Off-road diesel equipment shall comply with the 5 minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's In-Use off-Road Diesel regulation: www.arb.ca.gov/regact/2007/ordiesl07/froal.pdf. Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5 minute idling limit.

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Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	The project is located in proximity to sensitive surrounding land uses, and homeowners in the vicinity of the proposed project have expressed concern related to the impacts construction activities would have on surrounding properties. Construction activities can generate exhaust from equipment, which could be a nuisance to residents and businesses in proximity to the project site. In addition, operation of construction equipment, including equipment idling, generates diesel particulate matter, which can have an adverse effect on sensitive receptors

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Construction of the project may have an adverse impact on special-status species and their habitats, including off-site use of equipment, storage of materials, and inadvertent transport of debris or discharge of oils, fuels, and other pollutants into the beach area.	
Mitigation	<p>□□□□ -1 Prior to issuance of construction permits, the applicant shall submit documentation verifying designation of a qualified environmental monitor for all measures requiring environmental mitigation to ensure compliance with Conditions of Approval and EIR mitigation measures. The monitor shall be responsible for: (1) ensuring that procedures for verifying compliance with environmental mitigations are followed; (2) lines of communication and reporting methods; (3) daily and weekly compliance reporting; (4) construction crew training regarding environmentally sensitive areas; (5) authority to stop work; and (6) action to be taken in the event of non-compliance. Monitoring shall be at a frequency and duration determined by the affected natural resource agencies (e.g., USACE, CDFW, RWQCB, California Coastal Commission, USFWS, and the County).</p> <p>□□□□ -2 Prior to the initiation of construction, the environmental monitor shall conduct environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of sensitive habitats and animal species in the immediate area. Topics of discussion shall include: general provisions and protections afforded by the Endangered Species Act; measures implemented to protect special-status species; review of the project boundaries and special conditions; the monitor's role in project activities; lines of communications; and procedures to be implemented in the event a special-status species is observed in the work area.</p> <p>□□□□ -3 At the time of application for construction permits all grading plans shall clearly show the location of project delineation fencing, including protection fencing surrounding the Monterey cypress tree on the southern property boundary.</p> <p>□□□□ -4 Prior to the initiation of construction, the applicant's contractors and the environmental monitor shall coordinate the placement of project delineation fencing throughout the work areas. The environmental monitor shall field fit the placement of the project delineation fencing to minimize impacts to sensitive resources. The project delineation fencing shall remain in place and functional throughout the duration of the project. During construction, no project related work activities shall occur outside of the delineated work area.</p> <p>□□□□ -5 At the time of application for grading permits, all applicable plans shall clearly show stockpile and staging areas. Stockpiles and staging areas shall not be placed in areas that have potential to experience significant runoff during the rainy season. All project-related spills of hazardous materials within or adjacent to project sites shall be cleaned up</p>

Construction activities conducted during the nesting season (March through September) could directly or indirectly impact nesting western snowy plover and other bird and bat species.	
Mitigation	<p>□□□□-7 Upon application for construction permits, the following measure shall be included on all applicable plans: The applicant shall avoid ground disturbing activities conducted during the snowy plover nesting season to the extent feasible. If work activities must occur during the nesting season the following measures shall be taken:</p>

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	<p>a. Prior to installation of the project delineation fencing and the commencement of site grading, a qualified biologist shall conduct a series of pre-construction nesting bird surveys for western snowy plover. Surveys shall be conducted every other day for two weeks prior to any project related disturbances.</p> <p>b. Surveys for snowy plovers shall include walking through all potential nesting and foraging habitat within 300 feet of the site on each survey day. The survey area shall include all available snowy plover nesting habitat within 300 feet of anticipated project activities.</p> <p>c. The number of snowy plover individuals observed and their activities (e.g. nesting, foraging, resting, etc.) shall be documented. All documented occurrences would be reported to USFWS and documented on the CNDDDB.</p> <p>d. If nesting activity is identified, all project activities within 300 feet of the nest shall be delayed until the nesting activity has ceased.</p> <p>e. During construction, the environmental monitor shall conduct snowy plover surveys twice a week (preferably two to three days apart).</p> <p>☐☐☐☐☐-8 Upon application for construction permits, the following measure shall be included on all applicable plans: If commencement of construction begins between March and September, the environmental monitor shall conduct pre-construction nesting bird surveys. If nesting activity is identified, the following measures shall be implemented:</p> <p>a. If active nest of common passerine or shorebird species' are observed in the work area or within 100 feet of the work area, construction activities shall be modified and or delayed as necessary to avoid direct take or indirect disturbance of the nests, eggs, or young.</p> <p>b. If active nest sites of raptors or other special-status species are observed within the work area or 300 feet of the work area, the environmental monitor shall establish a suitable buffer around the nest site. Construction activities in the buffer zone shall be prohibited until the young have fledged the nest and achieved independence.</p> <p>c. Active raptor or special-status species nests should be documented by a qualified biologist and a letter report should be submitted to the County, USFWS, and CDFW, documenting project compliance with the MBTA and applicable project mitigation measures.</p>
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	The sandy beach area provides foraging habitat for a variety of birds, including western snowy plover (<i>Charadrius alexandrinus</i>), California black rail (<i>Laterallus jamaicensis coturniculus</i>), California brown pelican (<i>Pelecanus occidentalis</i>), and California least tern (<i>Sterna antillarum browni</i>). The mature cypress tree (to remain) and adjacent pine (to be removed) along the southern property boundary may provide tree nesting opportunities for birds. Due to the location of the project site and presence of suitable habitat in the area, precautionary measures are recommended to ensure impacts to snowy plover and other bird species are avoided.

☐☐☐☐☐3	
The proposed project could result in direct take of coast horned lizard during project grading and construction.	
Mitigation	<p>☐☐☐☐☐-9 Upon application for construction permits, the following measure shall be included on all applicable plans: Prior to site grading, the environmental monitor shall conduct a survey for coast horned lizard and other reptiles. The surveyor shall utilize hand search methods in areas of disturbance where coast horned-lizards are expected to be found (e.g., under shrubs, other vegetation, or debris). Any lizards located during this survey should</p>

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	be safely removed from the construction area and placed in suitable habitat.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	<p>The project site provides suitable habitat for coast horned lizard and other common reptiles. Grading activities could result in direct take of coast horned lizard and other reptiles if present. Direct take may include being struck by equipment, entrapped in stockpiled materials or trenches, or trampled or collected by construction personnel.</p> <p>Old Creek provides habitat for a variety of special-status species noted above. The project is located approximately 600 feet from the creek, and would not directly affect the ESHA or special-status species within the creek. Inadvertent impacts to special-status species may occur including use of equipment and storage of materials outside the property boundary, and leaks, spills, and debris adversely affecting the beach areas surrounding the parcel. Degradation of habitat would have an adverse effect on special-status species, and other wildlife in the area.</p>

□□ □ □□□4	
Construction of the project may impact the root zone or result in inadvertent disturbance of a mature cypress tree.	
Mitigation	Implement □□□ □ -3 and □□□ □ -4.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	One cypress tree is located adjacent to the project site, which is considered an important native species along the California coastline. This tree would remain. One small pine tree would be removed; however, this species is not considered native or important vegetation in this location. No other native or important vegetation would be directly affected by the project. Mitigation is recommended to ensure protection of the cypress tree.

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□□ □ □□□1	
The proposed residence would be exposed to the effects of liquefaction during a ground-shaking event.	
Mitigation	<p>□□□ □ -1 Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the recommendations identified in the Engineering Evaluation (Shoreline Engineering 2012) and Updated Geotechnical Investigation (GSI Soils, Inc.) dated December 27, 2011, specifically the recommendations identified in Section 5.2 – Preparation of the Building Pad, Section 5.3 – Structural Fill, Section 5.4 – Drilled Piers, Section 5.5 – Conventional Deepened Foundation, Section 5.6 – Slab Construction, and Section 5.9 – Surface and Subsurface Drainage.</p>
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive	Soil liquefaction is a phenomenon in which a saturated, cohesionless, near-surface soil layer loses strength during cyclic loading (such as typically generated by earthquakes). During the

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<div style="text-align: right;">□ □ □ □ □ 1</div>	
Evidence	<p>loss of strength, the soil acquires "mobility" sufficient to permit both horizontal and vertical ground movements. Soils that are most susceptible to liquefaction are clean, loose, saturated, uniformly graded, fine-grained sands that are generally located within 50 feet depth beneath the ground surface. Gravels with similar characteristics and non-plastic clays and silts have also been shown to be susceptible to liquefaction. Based on the potential presence of perched water conditions during wet winter months in the upper 5 feet of soils above the dense bedrock materials, the current potential for liquefaction is moderate to high.</p> <p>This potentially significant impact can be successfully addressed and mitigated via implementation of typical geotechnical recommendations for site processing, grading, and/or foundation design. Therefore, the resulting liquefaction potential at the project site would be low, and would generally result in minor to cosmetic damage to the proposed structure, and total settlements would be approximately 0.5 inch (GSI Soils, Inc. 2012). This amount of settlement is considered tolerable for the proposed project, and is indicative of liquefaction in the negligible category. Therefore, potential impacts can be mitigated to a <i>less than significant</i> level (Class II).</p>

<div style="text-align: right;">□ □ □ □ □ 2</div>	
The proposed residence would be exposed to the effects of ground lurching and differential compaction during a ground-shaking event.	
Mitigation	<p>□ □ □ □ -2 Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the recommendations identified in the Updated Geotechnical Investigation (GSI Soils, Inc.) dated December 27, 2011, and specifically the following:</p> <ol style="list-style-type: none"> a. All surface and subsurface deleterious materials shall be removed from the proposed building area and disposed of offsite. This includes, but is not limited to, any buried utility lines, loose fills, debris, building materials, and any other surface and subsurface structures. b. Voids left from site clearing shall be cleaned and backfilled as recommended for structural fill. c. Once the site has been cleared, the exposed ground surface shall be stripped to remove surface vegetation and organic soil.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	The potential for lurching and differential compaction (densification) of the existing undocumented fill is considered to be high due to the generally loose nature of the soil. This potential impact can be mitigated by removal and/or removal and backfilling as structural fill (GSI Soils, Inc. 2011). Based on compliance with these project-specific recommendations, potential impacts can be mitigated to <i>less than significant</i> (Class II).

<div style="text-align: right;">□ □ □ □ □ 3</div>	
Grading and excavation required for the construction of the project would result in significant, short-term, adverse impacts related to erosion and down-gradient sedimentation.	
Mitigation	Implement <i>BIO/mm-4</i> , <i>BIO/mm-5</i> , and <i>BIO/mm-6</i> .

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□ □ □ □ □ 3	
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	Implementation of the project will require grading and removal of sand, soil, and vegetation. Grading activities would disturb approximately 3,000 square feet of the 3,445-square-foot parcel, including 400 cubic yards of cut (foundation) and 150 cubic yards of fill (driveway). The average depth of cut would be 5 feet (minimum 1 foot, maximum 12 feet). Approximately 250 cubic yards of soil would be exported offsite. During construction, exposed soils may result in erosion during rain events, or wave runoff. Compliance with the County CZLUO and implementation of project-specific erosion-control measures are necessary to retain soils onsite and avoid down-gradient sedimentation into the Pacific Ocean. Based on compliance with existing regulations, and recommended mitigation measures, potential short-term impacts would be mitigated to a <i>less than significant</i> level (Class II).

□ □ □ □ □ 4	
The creation of steep cut slopes during site preparation and grading associated with construction of the proposed residence would result in short-term slope instability.	
Mitigation	GS/mm-3 Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the following: recommendations for slope stability identified in the Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011, specifically the recommendations identified in Section 5.10 – Temporary Excavations and Slopes; and Shoring Detail prepared by Shoreline Engineering (January 2012, updated September 20, 2012). Plans shall demonstrate how construction would be conducted such that no activity would compromise the neighboring structure. Construction of all site preparation and shoring activities shall be monitored by the project Engineer of Record, and daily monitoring reports shall be prepared and submitted to the County Department of Planning and Building on a weekly basis.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	Construction cuts for basement retaining walls may exceed 12 feet in depth on the south and east sides of the proposed residence. The potential for instability of temporary (construction) slopes is a significant concern, and there is a moderate to high potential for temporary slope instability impacting the project site and the adjacent property. To address this issue, the applicant proposes to retain temporary slopes with a shoring system consisting of soldier piles and steel plate lagging. The shoring system would be removed following permanent stabilization of the slope. Based on implementation of this strategy, and compliance with the recommendations presented in the <i>Updated Geotechnical Investigation</i> (GSI Soils, Inc. 2011), potential short-term impacts would be <i>less than significant</i> (Class II).

□ □ □ □ □ 5	
Beach sand scour caused by heavy surf may periodically and temporarily create unstable slopes adjacent to the proposed residence.	
Mitigation	□ □ □ □ -4 Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which include the use of deepened pier foundations identified in the Engineering Evaluation (Shoreline Engineering, Inc.), dated January 2012, and Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011, specifically the recommendations identified in Section 5.2 – Preparation of Building Pad,

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□ □ □ □ □ 5	
	Section 5.4 – Drilled Piers, and Section 5.5 – Conventional Deepened Foundation.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	Construction of the proposed driveway will result in structural fill placement against the existing 2:1 gradient fill slope of Studio Drive, with the fill being supported by retaining walls. Upon completion of the project, no significant slopes will exist that could pose a slope instability hazard to the property. Significant scour of beach sand due to heavy surf may temporarily create a steep bedrock slope ocean-ward of the existing bedrock outcropping. Provided the proposed residence is constructed on deepened pier foundations as proposed, temporary beach scour should not pose a slope instability hazard to the residence.

□ □ □ □ □ 6	
The proposed residence would be constructed on soils with a high expansion potential, resulting in a potentially significant long-term impact.	
Mitigation	□ □ □ □ -5 Prior to issuance of a construction permit, the applicant shall submit grading and construction plans, which incorporate the recommendations identified in the Updated Geotechnical Investigation (GSI Soils, Inc.), dated December 27, 2011, specifically the recommendations identified in Section 5.1 – Clearing and Stripping, Section 5.2 – Preparation of Building Pad, and Section 5.3 – Structural Fill.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	A single expansion index test was conducted by GSI Soils, Inc. (2007) on a sandy clay sample from Boring B-2 at 6 feet. The reported expansion index was 92, which indicates a high expansion potential. The material in B-2 at this depth is likely weathered mudstone bedrock. Based on the geotechnical report, onsite sand soils free of organic and deleterious material are suitable for use as non-structural fill below the select fill cap. Structural fill using onsite inorganic soil or approved imported soil should be placed in layers, conditioned, and compacted, pursuant to engineer's specifications. Therefore, potentially significant impacts related to expansive soil can be mitigated to <i>less than significant</i> (Class II).

□ □ □ □ □ 7	
The proposed stormwater drainage plan may result in erosion down-gradient of the proposed drain outlet.	
Mitigation	□ □ □ □ -6 Prior to issuance of grading and construction permits, the applicant shall submit a drainage plan for review and approval by the County Department of Public Works. The drainage plan shall be coordinated with the sedimentation and erosion control plan, be consistent with CZLUO §23.050.036 and 040, and specifically include engineered energy dissipators and controls that would limit peak runoff to pre-development levels.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	The applicant's proposed site drainage improvements would convey both Studio Drive runoff and driveway runoff to a drainage exit structure, which would outlet into a natural drainage swale. The natural drainage channel consists of highly erodible sands, and erosion in the channel has been accelerated by foot traffic from people accessing Morro Strand State

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□ □ □ □ □ 7	
	<p>Beach from Studio Drive. The swale would incorporate bollard style energy dissipators and a gravel/cobble invert, which are intended to reduce stormwater flow velocity and erosion potential. Rainfall from the residence roof is proposed to be collected by a roof gutter system and held in a cistern for gray water use and landscape irrigation.</p> <p>Construction of the proposed impermeable concrete driveway would result in an increase in surface runoff onsite, which increases the potential for erosion in the natural drainage swale. This impact can be mitigated through appropriate civil engineering drainage design. CZLUO §23.05.050 requires a Drainage Plan for development located on a site adjacent to any coastal bluff, or if the project may change the offsite drainage pattern. Based on the location of the project on the beach-side of Studio Drive, and proposed changes to the existing stormwater system, a Drainage Plan would be required, which would be based on the preliminary drainage plan summarized above. The proposed project would not result in substantial onsite or offsite flooding, because stormwater would continue to flow west towards the Pacific Ocean (similar to existing conditions, which do not result in flooding), and would be filtered and dissipated by the proposed system. Based on review of the preliminary drainage plan, compliance with the CZLUO, and incorporation of mitigation identified below, potential long-term impacts would be mitigated to a <i>less than significant</i> level (Class II).</p>

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□ □ □ □ □ 1	
Construction of the proposed project would potentially expose people to transportation-related noise levels that exceed the County Noise Element thresholds.	
Mitigation	<p>□ □ □ -1 Upon application for building permits, the project applicant shall include in the project design the following standard mitigation measures for interior noise mitigation provided in the Noise Element for levels in the 60-65 dBA range:</p> <ol style="list-style-type: none"> Air conditioning or a mechanical ventilation system; Windows and sliding glass doors mounted in low air infiltration rate frames (0.5 cubic feet per minute or less, per American National Standards Institute [ANSI] specifications); and, Solid core exterior doors with perimeter weather stripping and threshold seals.
Findings	After implementation of the mitigation measure, the proposed project impacts would be <i>not significant with mitigation</i> (Class II).
Supportive Evidence	<p>The project proposes a noise sensitive use within the vicinity of Highway 1. Per the County Noise Element, 60 dBA is considered the maximum acceptable exterior noise exposure level for residential uses and 45 dBA is the maximum acceptable exposure level for interior uses. Uses within this range will not require mitigation. The eastern boundary of the project site is located approximately 160 feet from the centerline of Highway 1. The topography between the highway and the site consist of generally flat areas to Studio Drive, and then the property slopes down several feet (approximately 5 to 8 feet) from Studio Drive to the beach. According to the County Noise Element contour maps, the 65 dBA range extends from the centerline of the highway 209 feet west. Therefore the easternmost 50 feet of the project site is located within the 65 dBA range, and the remainder is located within the 60 dBA range.</p> <p>The project has been designed to provide a noise buffer between Highway 1 and the proposed living space. The project proposes a driveway and parking garage on the eastern portion of the site, which are not considered outdoor uses subject to the 60 dBA limit. The living area is also proposed below the grade of the highway by approximately 8 to 10 feet. Because the topography of the subject lot is below the street elevation, the ground will buffer most of the noise from Highway 1, thereby allowing for a minimal impact from noise to the</p>

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7.0 **M**

No significant and unavoidable impacts (Class I) were identified for the proposed project.

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8.0 Cumulative Impacts

8.1 Cumulative Impacts

State CEQA *Guidelines* §15355 defines cumulative impacts as

“two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts”. Further, “the cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”

The Guidelines require the discussion of cumulative impacts to reflect the severity of the impacts and their likelihood of occurrence. However, the discussion need not be as detailed as the analysis of impacts associated with the project, and should be guided by the rule of reason. Cumulative impacts associated with this project are discussed in the topical analysis sections provided in Chapter 4 of the Final EIR.

8.1.1 Study Area

The cumulative study area for air quality impacts is the South Central Coast Air Basin (SCCAB). The project would contribute criteria pollutants during project construction and long-term operational use, including ozone precursors and particulate matter. No major projects are proposed in the immediate vicinity of the project site; however, a number of large development projects are currently under review by the County, and cities within the county, including mixed-use, residential, commercial, and solar energy projects. These projects may be under construction simultaneously with the project and, in the long term, would be generating similar air emissions due to use of construction equipment, increased traffic trips, and energy use.

Depending on construction schedules and actual implementation of projects in the air basin, generation of fugitive dust and pollutant emissions during construction could result in short-term increases in air pollutants. Analysis conducted specifically for this project concluded that implementation of the proposed project would not significantly contribute to cumulative long-term operational air quality impacts because it would not exceed the daily ROG+NO_x threshold. GHG impacts, including those described above, all contribute cumulatively with those produced worldwide, to affect climate change. Compliance with identified air quality, energy efficiency, and water conservation mitigation measures would reduce the project's contribution to cumulative GHG emissions, and subsequent climate change. Cumulative effects would be *less than significant* (Class III).

8.1.2 Other Projects

No major projects are scheduled to be constructed during a similar timeframe as the project. The closest known project is the Morro Bay to Cayucos Connector, which would run along Studio Drive adjacent to the project site, within the paved area. The timing for construction of that project is currently undetermined. Based on the location and size of the project, and implementation of recommended mitigation measures, the project would not have any significant residual direct or indirect adverse impacts to sensitive biological resources, including special-status species, habitats, and wildlife. The site is not within a designated Environmentally Sensitive Habitat Area (ESHA). The project would not significantly contribute to the loss of

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species or sensitive habitat. Therefore, potential cumulative impacts would be *less than significant* (Class III).

8.1.3 Cultural Resources

The destruction of cultural resources can have the potential for significant cumulative impacts as they are inherently important to the descendants of native peoples and make the study of pre-historic and historic life unavailable for study by scientists. Given the prevalence of cultural resource sites in San Luis Obispo, and the number of construction activities that involve disturbance of archaeologically sensitive areas that are not regulated, it is likely that significant pre-historic and historic resources are often not identified and are permanently lost. For the proposed project, no prehistoric archaeological resources were identified with the project site, and implementation of the proposed project would not contribute to the cumulative degradation of significant cultural resources in the County. Based on lack of significant resources at the project site, and compliance with the CZLUO, potential cumulative impacts resulting from the proposed project are considered *less than significant* (Class III). No additional mitigation is required.

8.1.4 Geologic Hazards

Implementation of the pending and approved projects listed in the cumulative development scenario would increase development in the immediate area. No projects requiring grading or construction would occur in the immediate vicinity of the project, and no existing adverse geologic or drainage conditions are present on or adjacent to the project site.

Additional development, including the proposed project, would increase the number of people and structures exposed to a variety of geologic and soils hazards within the County, including liquefaction, ground shaking, and temporary exposure to sea level rise and storm surge. Potential impacts related to geologic, soils, and seismic hazards are all site-specific, and mitigation measures are applied to each project to minimize the potential for significant geologic impacts. All development projects are required to comply with State and local regulations regarding grading and construction; therefore, no cumulative impacts related to these issues have been identified. Implementation of mitigation measures identified above, and compliance with existing regulations would mitigate impacts to *less than significant* (Class III), and no additional measures are necessary.

8.1.5 Hazardous Materials

Due to the type of project proposed, and lack of hazards or hazardous materials within or near the project site, construction and operation of the project would not contribute to environmental impacts related to hazards. Cumulative impacts would be *less than significant* (Class III). No additional mitigation is required.

8.1.6 Recreation

As with any new residential development, the project has the potential to result in a cumulative effect on recreational resources, by adding demand on public parks, trails, and recreational areas. However, the project's cumulative impacts are within the general assumptions of allowed use for the subject property. Adequate public facility fee programs have been adopted to address these impacts. Impacts to the area recreational resources and facilities will be mitigated through the payment of appropriate fees prior to issuance of a building permit for the proposed project. The future Morro Bay to Cayucos connector bike path is proposed to run along Studio Drive directly adjacent to the project site, which will create a *beneficial impact* (Class IV) on

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recreational resources by providing additional pedestrian and biking trails in the project vicinity and connecting other recreational opportunities in the city of Morro Bay and community of Cayucos.

8.1.7 Population and Tourism Impacts

Population and tourism in the areas surrounding the proposed project are expected to slowly and steadily increase in the future, resulting in a corresponding steady increase in traffic, parking demands, and safety conflicts in the Cayucos area. The proposed project would contribute to cumulative traffic volumes in the area; however, because it is not resulting in an increase in residential density, the increase would be minor, and at a level anticipated in by the Estero Area Circulation Element. Therefore, potential cumulative impacts would be *less than significant* (Class III).

8.1.8 Water Demand Impacts

Water demand for the proposed use represents a small percentage of total water demand in the Cayucos area, and the boundaries of CSA 10A (approximately 0.6%). As previously discussed, CSA 10A has available water to serve this project, in addition to others within the service area. Therefore, potential cumulative impacts would be *less than significant* (Class III).

8.2 Growth-Inducing Impacts

CEQA Guidelines §15126.2(d) requires an EIR to discuss the growth inducing impacts of a proposed project, including the ways in which the project would foster economic or population growth, encourage the construction of additional housing, or remove an obstacle to population growth in the surrounding environment, either directly or indirectly. The goal of the growth inducing impacts section of the EIR is to address the effects the proposed project may have on surrounding facilities and activities by assessing the ways in which a project could encourage population or economic growth, increase employment opportunities or employment growth in support of an industry, or stimulate the construction of new housing or service facilities.

Based on the CEQA Guidelines criteria outlined above, the proposed project was evaluated in order to determine if any part of the project demonstrates the potential to result in growth inducing impacts. The project proposes one single-family residence on one of the few undeveloped lots in an existing developed neighborhood. The use is consistent with the general level of development currently existing along Studio Drive and anticipated under the Residential Single Family (RSF) land use designation. Other than temporary employment associated with construction of the residence, the project would not create new jobs or facilitate employment growth. Given its small scale and limited function, the project would not induce population or economic growth in the area. Impacts would be *less than significant*.

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9.0 Discussion

CEQA, §15126.6(a), requires an EIR to “describe a reasonable range of alternatives to a project, or to the location of a project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives”. Through the scoping process, if an alternative was found to be infeasible, as defined above, then it was dropped from further consideration. In addition, CEQA states that alternatives should “attain most of the basic objectives of the project...” Please refer to Chapter 5, Alternatives Analysis, of the EIR for a detailed discussion of the alternatives. The following alternatives were selected for more detailed review.

9.1.1 No Project Alternative

The No Project Alternative would include none of the components of the proposed project. If a project is not built at this time, a residential project may be proposed in the future.

9.1.2 Coastal Hazards Alternative

The project site is located on the beachside of Studio Drive, and would be exposed to coastal hazards including sea level rise, wave-up, and storm surge. Independently, these conditions would not adversely affect the proposed structure; under extreme conditions, ocean water may reach the 22.2-foot elevation, and may overtop the existing rock outcrop and splash against the basement wall.

An alternative to this would be to eliminate the basement and construct the residence on steel-reinforced concrete pilings. This would allow ocean water to flow under the structure entirely before receding back. Under this alternative, the main floor and mezzanine, including the cantilevered portion, would remain.

This alternative consists of an approximately 1,857-square-foot residence including:

- 1,097 square feet of main floor living space
- 338-square-foot mezzanine
- 242-square-foot garage and 200-square-foot carport
- 180-square-foot covered deck
- Solar panels installed on the south-facing slopes of the roof

The residence would consist of one main floor supported on pilings. The maximum width of the structure would be 18 feet, and the maximum length would be 95 feet. A paved driveway would provide access from Studio Drive. The maximum height of the residence would be 15 feet above the centerline elevation of Studio Drive. It is expected that retaining walls would be necessary adjacent to Studio Drive, and along a portion of the southern and northern sides of the residence, with continuous footings extending into the underlying bedrock materials.

9.1.3 Traditional Design Alternative

This design alternative incorporates a more traditional design, as opposed to the modern structure proposed by the applicant. It does not include the extended cantilevered main floor, or a substantial reduction in the extension, and provides sloped roofs. This alternative is

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considered a reduced design option, and consists of an approximately 2,572-square-foot residence including:

- 772 square feet of main floor living space
- 1,040-square-foot basement
- 338-square-foot mezzanine
- 242-square-foot garage and 200-square-foot carport
- 180-square-foot covered deck
- Solar panels installed on the south-facing slopes of the roof

The residence would consist of one main floor and a basement. The footprint of the house would be 1,040 square feet. The maximum width of the structure would be 18 feet, and the maximum length would be 70 feet. A paved driveway would provide access from Studio Drive. The maximum height of the residence would be 15 feet above the centerline elevation of Studio Drive. The basement would be located below the elevation of Studio Drive.

The exterior walls of the structure would be concrete and would retain soils along the southern, eastern, and northern sides of the residence. Retaining walls will also be constructed adjacent to Studio Drive with continuous footings extending into the underlying bedrock materials.

9.1.4 **Visual Resources**

As noted above, no significant aesthetic resource impacts were identified; however, a reasonable alternative to the project includes additional features to articulate the design and blend it into the beach landscape. This includes incorporation of native, low-growing shrubs and vegetation along the northern and western aspects, and the use of native (or simulated native) rocks along the driveway retaining wall. This alternative would consist of the same size, footprint, width, and height, as the proposed project.

9.2 **Environmental Mitigation**

CEQA requires the alternatives section of an EIR to describe a reasonable range of alternatives to the project that avoid or substantially lessen any of the significant effects identified in the EIR analysis while still attaining most of the basic project objectives. The alternative that most effectively reduces impacts while meeting project objectives should be considered the “environmentally superior alternative.” In the event that the No Project Alternative is considered the environmentally superior alternative, the EIR should identify an environmentally superior alternative among the other alternatives.

In this EIR, the No Project Alternative results in the fewest environmental impacts, although it does not meet any of the project objectives, including the primary objective to build a single-family residence.

As proposed, and with incorporation of recommended mitigation measures, the proposed project would not result in any significant, unavoidable environmental effects, and would meet project objectives. All proposed alternatives would meet the project objectives, and would not result in any significant, adverse, and unavoidable (Class I) impacts upon implementation of mitigation measures similar to those identified for the proposed project.

The proposed Reduced Project and Design Alternatives (A, B, and C) provide some variation in size and project design in response to public comment, and include alternatives to the proposed

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basement, cantilevered living space, and exterior design elements. Design Alternative A – Reduced Project, Pilings, would marginally reduce the intensity of identified geology and soils impacts, primarily related to coastal hazards, and would still require substantial engineered design and incorporation of design-specific mitigation measures. Design Alternative B – Reduced Project, Traditional Design does not include the cantilevered portion of the residence, which may be more consistent with Small Scale Neighborhood Standards. Alternatives A, B, and C (Vegetation and Articulation) may reduce the perceived mass of the structure as seen from Studio Drive and the beach area, and may be more consistent with County Plans and Policies related to visual resources.

Based strictly on an analysis of the relative environmental impacts, the proposed project, with adoption and incorporation of recommended mitigation measures, is considered the Environmentally Superior Alternative. The decision-making body will consider the whole of the record when considering the approved project including, but not limited to, public comment and testimony related to the size and design of the residence. The decision-making body may select the project as proposed, an Alternative, or a specified combination of particular elements identified in the Alternatives, as the approved project. In all scenarios, the Mitigation and Monitoring Program (MMRP) would be applied to the approved project.

Based on direction from the Planning Commission, the applicant revised the project which reduced the size of the proposed project from what was evaluated in the EIR. — The revised project is a reduced project with a traditional architectural style and reduced cantilever. This revised project is approximately 543 square feet smaller than the proposed project and the large cantilevered portion has been significantly reduced by approximately 16 feet shorter in living area. This revised project is consistent with the EIR alternatives discussed and is consistent with EIR Alternative B.

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10.0 Mitigation Monitoring and Reporting

PRC §21081.6 requires the lead agency, when making the findings required by PRC §21081(1)(a), to adopt a reporting or monitoring program for the changes to the project that it has adopted, in order to ensure compliance during project implementation. The County is the lead agency responsible for the adoption of the reporting or monitoring program. A Mitigation Monitoring and Reporting Plan (MMRP) has been prepared that requires the County to monitor mitigation measures designed to reduce or eliminate significant impacts, as well as those mitigation measures designed to further reduce environmental impacts that are less than significant.

The MMRP designates responsibility and anticipated timing for the implementation of mitigation measures within the jurisdiction of the County. Implementation of the mitigation measures specified in the Final EIR and the MMRP will be accomplished through administrative controls over project planning and implementation. Monitoring and enforcement of these measures will be accomplished through verification in periodic Mitigation Monitoring Reports and periodic inspection by appropriate County personnel. The County reserves the right to make amendments to and/or substitutions of mitigation measures if, in the exercise of discretion of the County, it is determined that the amended or substituted mitigation measure will mitigate the identified significant environmental impact to at least the same degree of significance as the original mitigation measure it replaces, or would attain an adopted performance standard for mitigation, and where the amendment or substitution would not result in a new significant impact on the environment that cannot be mitigated.

As lead agency for the Loperena MUP/CDP EIR, the County hereby certifies that the MMRP set forth in Chapter 7 of the Final EIR, which has been designed to ensure compliance during construction of the proposed project and includes all of the mitigation measures identified in the Final EIR and adopted and incorporated into the project, is adequate to ensure the implementation of the mitigation measures described herein.

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Geotechnical • Geologic • Coastal • Environmental

5741 Palmer Way • Carlsbad, California 92010 • (760) 438-3155 • FAX (760) 931-0915 • www.geosoilsinc.com
March 12, 2014 WO 6206-SC

Ms. Shawna Scott
SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401

SUBJECT: Sea Level Rise and Coastal Hazard Discussion, Northwest and Immediately Adjacent to 2612 Studio Drive (APN 064-253=07), Cayucos, San Luis Obispo County, California

REFERENCES: GeoSoils Inc, 2011. "Discussion of Coastal Hazards and Wave Runup, Northwest and Immediately Adjacent to 2612 Studio Drive (APN 064-253=07), Cayucos, San Luis Obispo County, California," dated March 14

GeoSoils Inc, 2013. "Supplemental Discussion of Coastal Hazards and Wave Runup, APN 064-253-07, Cayucos, San Luis Obispo County, California." dated April 10

Dear Ms. Scott:

At your request, GeoSoils Inc. (GSI) has prepared the following update of our above referenced wave runup and coastal hazard reports for the subject Cayucos site. The purpose of this update is to provide additional site specific wave runup analysis and discussion of future hazards in consideration of the California Coastal Commission (CCC) Draft Sea-Level Rise (SLR) Policy Guidance document and the newly revised proposed development. The CCC Draft SLR Policy Guidance document was released in October 2013 is currently undergoing revisions and has not been finalized, approved, or officially implemented. The CCC currently proposes to adopt the National Research Council 2012 SLR estimates of 16.56 inches to 65.76 inches over the time period from 2000 to 2100. In addition to the new CCC SLR draft document, the proposed development has been revised to address project concerns.

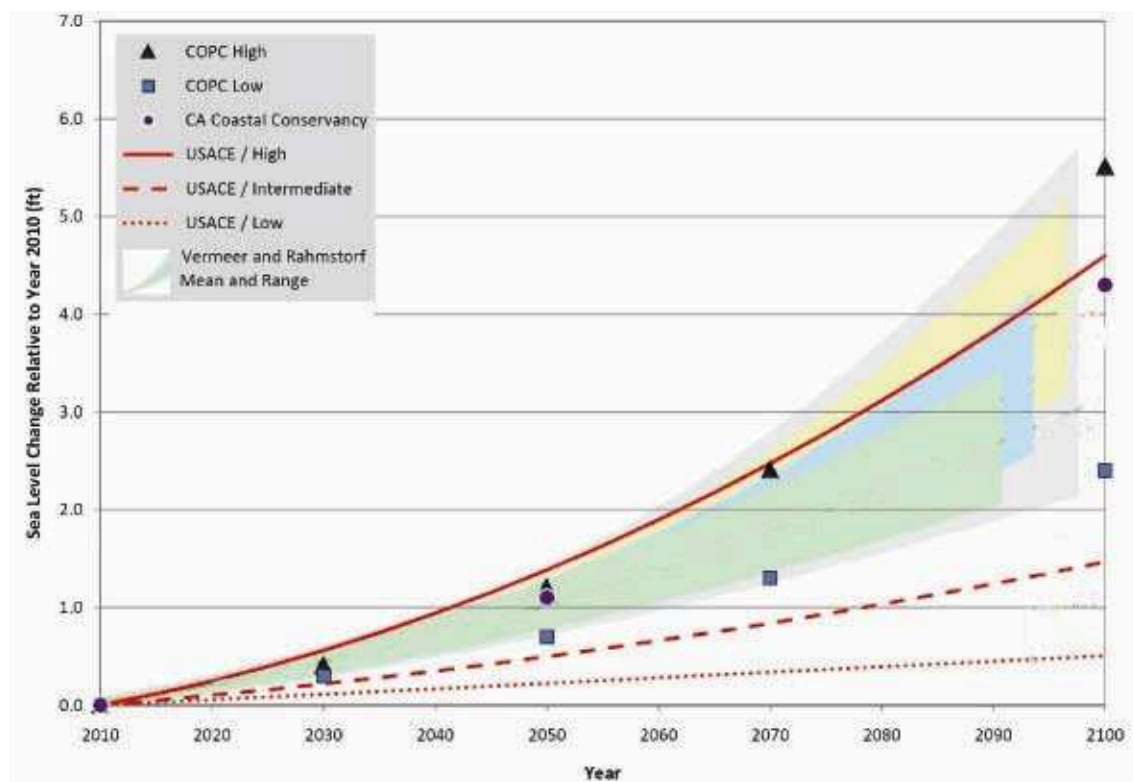
Sea Level Rise

Any incorporation of sea level rise (SLR) in the design of a coastal project needs to appropriately consider several factors that include the expected life of the structure, the range of future SLR estimates and their accuracy, and the elevation of the proposed development. Figure 1 is provided to illustrate the various prediction and prediction ranges for SLR from the 2010 to 2100. The 2009 U.S. Army Corps guideline provides a high, an intermediate, and a low SLR estimate. The CCC has adopted the National

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Research Council 2012 SLR estimates of 16.56 inches to 65.76 inches over the time period from 2000 to 2100. Figure 1 compares many of the current SLR estimates including the US Army Corps of Engineers, the CA Coastal Conservancy and CA Ocean Protection Council, and the predictions of leading climate scientists (Vermeer and Rahmstorf). The CCC Draft Sea-Level Rise Policy Guidance high SLR estimate for the year 2100 is the same as the COPC High estimate and the CCC low estimate is the about same as the USACE low estimate. It is clear that while there is some agreement over the next 30 years, beyond 30 years from now there is little agreement on SLR projections as evidenced by the large range of SLR in the year 2100.



Recently the NOAA Laboratory for Satellite Altimetry global chart, with its California Current subarea sea level topographic characterization (patches) for 1993-2011, indicates that sea level during these 18 years has generally dropped about 4 cm along California's shoreline between the Oregon border and north of Pt. Arguello. In addition, volcanic eruptions in the early part of the 21st century have cooled the planet, according to a study led by Lawrence Livermore National Laboratory. This cooling partly offset the warming produced by greenhouse gases. The SLR models depicted in Figure 1 did not predict this generally lowering of sea level from 1993 - 2011 and do not account for the impact of volcanic eruptions. There are many factors that influence sea level that make the modeling very difficult resulting in uncertainty. There is a wide range in SLR predictions over the next 90 years which is why using the lowest or the highest SLR prediction needs

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to be put in perspective. It should be pointed out the CCC SLR document just provides a range and does not actually specify a set SLR number to use for the year 2100.

Future Wave Runup

The wave runup modeling presented below uses the unlikely coincidence of a fully eroded beach (down to the bedrock), a very high tide, an El Nino condition, very high waves, and the maximum predicated sea level rise. Our previous wave runup reports used a SLR of 2 feet (GSI, 2011) and 2.5 feet (GSI, 2013). Both of these reports concluded that wave runup will not significantly impact the proposed development. Figure 1 shows that under the 2.5 foot SLR estimate and the most onerous modeling development will be not subject to significant wave runup until the year 2070. The SLR estimates previously used are within the SLR range in the CCC policy document and were calculated using the methods outlined in the CCC document. During a recent public hearing on this project concerns were raised that much higher SLR estimates should be used. It is GSI's opinion that our previous analysis meets the current standard of practice, is consistent with the CCC draft SLR policy document, and given the uncertainty of SLR projection, it reasonably determines the coastal hazard risks to the proposed development. However, for the sake of discussion GSI performed two additional wave runup analysis with SLR at 4.6 feet and 5.5 feet above the highest recorded water elevation. The analysis results are provided in the Tables below.

AUTOMATED COASTAL ENGINEERING SYSTEM ... Version 1.02 3/ 9/2014 9:13
Project: WAVE RUNUP LOPERENA SITE CAYUCOS 4.6 FEET SLR

WAVE RUNUP AND OVERTOPPING ON IMPERMEABLE STRUCTURES				
Item		Unit	Value	
Wave Height at Toe	Hi:	ft	7.000	Rough Slope Runup and Overtopping
Wave Period	T:	sec	18.000	
COTAN of Nearshore Slope			50.000	
Water Depth at Toe	ds:	ft	9.000	
COTAN of Structure Slope			2.300	
Structure Height Above Toe	hs:	ft	14.100	
Rough Slope Coefficient	a:		0.956	
Rough Slope Coefficient	b:		0.398	
Deepwater Wave Height	H0:	ft	4.218	
Relative Height	(ds/H0):		2.134	
Wave Steepness	(H0/gT^2):		0.405E-03	
Wave Runup	R:	ft	12.225	
Onshore Wind Velocity	U:	ft/sec	3.376	
Overtopping Coefficient	Alpha:		0.500E-01	
Overtopping Coefficient	Qstar0:		0.700E-01	
Overtopping Rate	Q:	ft^3/s-ft	1.891	

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AUTOMATED COASTAL ENGINEERING SYSTEM ... Version 1.02 3/ 9/2014 9:16
 Project: WAVE RUNUP LOPERENA SITE CAYUCOS 5.5 FEET SLR

WAVE RUNUP AND OVERTOPPING ON IMPERMEABLE STRUCTURES				
Item		Unit	Value	
Wave Height at Toe	Hi:	ft	7.700	Rough Slope Runup and Overtopping
Wave Period	T:	sec	18.000	
COTAN of Nearshore Slope			50.000	
Water Depth at Toe	ds:	ft	9.900	
COTAN of Structure Slope			2.500	
Structure Height Above Toe	hs:	ft	14.200	
Rough Slope Coefficient	a:		0.956	
Rough Slope Coefficient	b:		0.398	
Deepwater Wave Height	H0:	ft	4.747	
Relative Height	(ds/H0):		2.085	
Wave Steepness	(H0/gT^2):		0.455E-03	
Wave Runup	R:	ft	12.952	
Onshore Wind Velocity	U:	ft/sec	3.376	
Overtopping Coefficient	Alpha:		0.500E-01	
Overtopping Coefficient	Qstar0:		0.700E-01	
Overtopping Rate	Q:	ft^3/s-ft	3.473	

For each overtopping rate the height of water and the velocity of this water can be calculated using the following empirical formulas provided by the USACOE (Protection Alternatives for Levees and Floodwalls in Southeast Louisiana, May 2006, equations 3.1 and 3.6) based upon the calculated overtopping rate Q for each SLR case. It should be noted that these formula are slightly different than the formulas used in GSI 2013 analysis. The equations below include some reduction in the bore height and velocity via friction due to the 10 foot setback from the top of the rock to the revised basement location.

$$q = 0.5443 \sqrt{g} h_1^{3/2}$$

$$v_c = \sqrt{\frac{2}{3} g h_1}$$

Therefore, for SLR of 4.6 feet with an overtopping rate of 1.89 ft³/s-ft the water height h_1 = 0.72 feet and the velocity, v_c = 3.9 ft/sec. For SLR of 5.5 feet with an overtopping rate of 3.4 ft³/s-ft h_1 = 1.06 feet and the velocity, v_c = 4.76 ft/sec. Under both SLR cases the height and velocity of water reaching the proposed improvement are not significant. This is a pulse of water coming over the rock outcropping and not a sustained flow or water elevation.

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Discussion

As stated above, incorporating sea level rise estimates into the design of a structure along a shoreline needs to consider several factors. While the governing LCP and County General Plan requires consideration of a project over a 100 year time period, coastal structures typically have a much shorter design life. Many shoreline residential structures are replaced about every 50 years. In fifty years, under the most onerous SLR estimates, sea level will be about 2 feet higher than it is today. As noted above, the wave runup modeling presented herein uses the unlikely coincidence of a fully eroded beach (down to the bedrock), a very high tide, an El Nino condition, very high waves, and the maximum predicated sea level rise. The window of vulnerability, under these rare conditions, for the proposed development will only be about 1 hour, when the tide is the highest. Even under these conditions the impact of wave runup is not sufficient to damage the structure.

Consider development along the east coast of the United States where hurricanes can inundate coastal communities. The impact of hurricanes is mostly mitigated through the design of the structures. That is structures are designed to withstand the impact of wind, water, and wave/tidal surges. The proposed project is well above any sustained water elevation and designed to withstand any surge/wave runup forces. It is important to point out that the governing design forces for this structure are seismic forces on the mass of the structure. These forces are typically two orders of magnitude greater than wave or water forces. That is to say that because the structure is designed in accordance with the California Building Code it can withstand any potential wave or water forces in the future.

Finally, the recent (March 1, 2014) coincidence of very high tides and very high waves at the site provides a revealing look at what will happen to the site under extreme oceanographic conditions. While damage did occur to nearby areas, the wave runup did not result in erosion or vegetation loss at the project site.

In closing, the conclusions of our previous reports remain valid and pertinent. Any structure that is on the shoreline under extreme conditions will be subject at a minimum to spray and splash from wave runup. The proposed development is clearly safe from coastal hazards for the next several decades under even the most onerous SLR projects. If SLR is 4 feet or higher, the basement portion of the development will be subject to wave runup under a very high tide in coincidence with very high waves (for about 1 hour). However, the height of the water will be about 1 foot with insufficient velocity to do any damage (using the worst case of SLR 5.5 feet). Finally, the revised development has the lower basement floor set back an additional 10 feet, and fill material between the existing bedrock outcropping (to remain) would be replaced with new fill and compacted and stabilized with vegetation, which further decreases the effective height and velocity of future extreme wave runup.

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New shore protection will likely not be required to protect the proposed development over the next 75 to 100 years. The proposed development will neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or adjacent area.

LIMITATIONS

Coastal engineering is characterized by uncertainty. Professional judgements presented herein are based partly on our evaluation of the technical information gathered, partly on our understanding of the proposed construction, and partly on our general experience. Our engineering work and judgements have been prepared in accordance with current accepted standards of engineering practice. This warranty is in lieu of all other warranties express or implied.

Respectfully submitted,



GeoSoils, Inc.
David W. Skelly MS
RCE#47857



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March 19, 2014
SC0099F

Ms. Shawna Scott
SWCA ENVIRONMENTAL CONSULTANTS
1422 Monterey Street, Suite C200
San Luis Obispo, California 93401

SUBJECT: **Review of Modified Project Plans and Supporting Documents**
RE: Loperena Minor Use Permit/Coastal Development Permit
Studio Drive, Cayucos, San Luis Obispo County, CA

Dear Ms. Scott:

In accordance with your request, Cotton, Shires and Associates, Inc. (CSA) has reviewed modified project plans and supporting documents recently submitted for the referenced project. It is our understanding the applicant prepared these materials in response to public comment and Planning Commission comments received at the Planning Commission hearing that we attended on January 23, 2014. Specifically, we have reviewed the following additional materials:

- C.P. Parker Architects, March 14, 2014, Design Development Phase Drawings for Jack Loperena Residence, Studio Drive, Cayucos, California, APN 064-253-007, Sheets A1.1 (Floor Plans), A2.1 (Basement Floor Plan), A2.2 (Main Floor Plan) and A3.1 (Elevations); and
- Shoreline Engineering, March 12, 2014, Letter Re: Studio Drive Beach House, Modification to Building Foundation & Site Impact Reduction.

Review of the modified architectural plans indicates that the proposed residence has been significantly reduced in size. The oceanward side of the basement floor has been shifted approximately 12 feet landward (i.e., toward Studio Drive, away from the beach) relative to the previous design, and the first floor cantilever over the basement floor has also been significantly reduced and shifted landward. The proposed basement floor and main floor are designed at elevations 15' and 25' (NAVD88), respectively, similar to the previous project.

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The documentation provided by Shoreline Engineering, Inc. indicates that the modifications to the building design will result in reduced site impacts, including reduced excavations for foundations and reduced amount of concrete foundation mass needed to resist overturning forces imposed by the cantilevered building design.

Based upon our review of the project modifications and supporting documentation, as well as the updated sea level rise and coastal hazard discussion provided by Coastal Engineer David Skelly of GeoSoils, Inc. (2014), it is our opinion that the findings and conclusions of our technical hazards review (May, 2011) remain applicable to the proposed project. Furthermore, the geotechnical engineering recommendations contained within the addendum reports prepared by the applicant's geotechnical consultant (GSI Soils Inc., December, 2011, October, 2012) and peer reviewed by our office (August, 2012; October 2012) also appear to remain applicable to the modified project.


LIMITATIONS


This letter has been prepared to provide technical advice to SWCA Environmental Consultants pursuant to its preparation of the Environmental Impact Report for the referenced project. Our services consist of professional opinions and recommendations made in accordance with generally accepted engineering geology and geotechnical engineering principles and practices. No warranty, expressed or implied, or merchantability of fitness, is made or intended in connection with our work, by the proposal for consulting or other services, or by the furnishing of oral or written reports or findings.

Respectfully submitted,

COTTON, SHIRES AND ASSOCIATES, INC.




Michael B. Phipps
Principal Engineering Geologist
CEG 1832


Patrick O. Shires
Senior Principal Geotechnical Engineer
GE 770



MP:POS:st

Attachment: References

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REFERENCES

Cotton, Shires and Associates, Inc., May 31, 2011; Technical Report-Geotechnical and Coastal Hazards Review, Loperena Minor Use Permit/Coastal Development Permit, APN 064-253-07, Studio Drive, Cayucos, San Luis Obispo County, California.

____, August 21, 2012; Supplemental Geotechnical Peer Review for Environmental Impact Report Preparation, Loperena Minor Use Permit/Coastal Development Permit, Studio Drive, Cayucos, San Luis Obispo County, CA.

____, October 31, 2012; Supplemental Geotechnical Peer Review (No. 2) for Environmental Impact Report Preparation, Loperena Minor Use Permit/Coastal Development Permit, Studio Drive, Cayucos, San Luis Obispo County, CA.

GeoSoils, Inc., March 12, 2014; Sea Level Rise and Coastal Hazard Discussion, Northwest and Immediately Adjacent to 2612 Studio Drive (APN 064-253-07), Cayucos, San Luis Obispo County, California.

GSI Soils Inc., December 27, 2011; Updated Geotechnical Investigation, Proposed Residence, Lot 41, Studio Drive, Cayucos, California.

____, October 1, 2012; Response to Supplemental Geotechnical Peer Review, Loperena Residence, Lot 41, Studio Drive, Cayucos, California.